# UNITED STATES DEPARTMENT OF THE INTERIOR MINERALS MANAGEMENT SERVICE AND GEOLOGICAL SURVEY

AN OILSPILL RISK ANALYSIS FOR THE DIAPIR FIELD (JUNE 1984)
OUTER CONTINENTAL SHELF LEASE OFFERING

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#### Introduction

The Federal Government has proposed to offer Outer Continental Shelf (OCS) lands in the Diapir Field off the north Alaska coast for oil and gas leasing. This report examines what could happen if leases are issued and oil is found, and attempts to compare relative risks of future leasing with risks of existing leases and transportation of Canadian oil through the study area.

Oilspills are a major concern associated with offshore oil production. An important fact that stands out when one attempts to evaluate the significance of accidental oilspills is that the problem is fundamentally Uncertainty exists about the amount of oil that will be produced from the leases and the number and size of spills that might during the life of production, as well as the wind and current conditions that would exist at the time of a spill occurrence and give movement and direction to the oil slick. Although some of the uncertainty and imperfect data, considerable uncertainty is incomplete simply inherent in the problem of describing future events over which complete control cannot be exercised. Since it cannot be predicted with certainty that a probabilistic event such as an oilspill will occur, only the likelihood of occurrence can be quantified. The range of possible effects that may accompany a decision related to oil and gas production must be considered. In attempting to maintain perspective on the problem, one must associate each potential effect with a quantitative estimate of its probability of occurrence.

This report summarizes results of an oilspill-risk analysis conducted for the proposed Diapir Field OCS Lease Offering (June 1984). The study had the objective of determining relative risks associated with oil and gas production in different regions of the proposed lease area. The study was undertaken for consideration in the draft Environmental Impact Statement (EIS), which is prepared for the area by the Minerals Management Service (MMS), formerly the Bureau of Land Management (BLM), and to aid in the final selection of tracts to be offered for sale. A description of the oilspill trajectory analysis model used in this analysis can be found in previous papers (Lanfear and others, 1979; Smith and others, 1982; Lanfear and Samuels, 1981). The analysis was conducted in three parts corresponding to different aspects of the overall problem. The first part dealt with the probability of oilspill occurrence, and the second dealt with the trajectories of oilspills from potential launch points to various targets. Results of the first two parts of the analysis were then combined to give estimates of the overall oilspill risk associated with oil and gas production in the lease area.

#### Summary of the Proposed Action

The proposed action is to offer for lease a large number of tracts on the Outer Continental Shelf in the Diapir Field off the north Alaska coast. The study area for this analysis includes all of these tracts and extends from latitude 62.5° N. to 74° N., and from longitude 134° W. to 168° W. (figure 1). The study area also includes existing leases in the Beaufort Sea from OCS sale 71 and a joint Federal and State sale. Canadian leases near Mackenzie Bay were also included in the analysis.

The study area and the proposed lease area are shown on a Mercator projection in figure 1. Thirty launch points (P1-P30) which represent hypothetical platform locations, and locations along pipeline and tanker routes are also shown in figure 1. Figure 2 shows the location of 30 launch points (P31-P60) which represent Canadian oil leases (P31-P33) and the end points (P34-P60) of oilspill trajectories which started during the winter (ice cover) season and remained within the boundaries of the study area at the time of ice breakup (approximately July 15). The need for these two sets of launch points will be explained in the section on Oilspill Trajectory Simulations.

from The oilspill risks the proposed action and two tract deletion alternatives were considered in this analysis. The transportation scenarios for this analysis involved pipelines to shore with land falls in the vicinity of launch points P1, P15, and P22. For the proposed action, the launch points used to represent potential platform locations P1-P11, P13-P15, P17-P18, P21, P24-P27, and P29-P30. The first tract deletion alternative, called the eastern deletion included all of the launch points for the proposed action minus P26-P27 and P29-P30. The second tract deletion alternative, called the western deletion included all of the launch points for the proposed action minus P1, P3-P7, and P10. In addition to oil production from the proposed lease offering, oil produced from tracts in the sale 71 area (P11, P13, P15, P18), the sale BF area (P20, P22), the Duck Island/Sag Delta area (P22), and Canadian leases (P31-P33) were included in the analysis. The transportation schemes for the first three areas involved pipelines to shore. The transportation of oil from the Canadian leases involved the westward movement of oil by tankers.

#### Environmental Resources

The locations of 28 categories of environmental resources (or targets, as they are designated in this paper) were digitized in the same coordinate system, or base map, as that used in trajectory simulations. Targets were selected by MMS analysts in the Alaska Regional OCS office, who are preparing the EIS. Maps showing the digitized targets are shown in appendix A, figures A-1 to A-6. The monthly sensitivities of these targets were also recorded so that, for example, a target such as migrating birds could be contacted by simulated oilspills only when the birds would be in the area. The targets are listed below:

Bowhead Whale Feeding Area A Bowhead Whale Feeding Area B Beluga Whale Concentration Area A Beluga Whale Concentration Area B Major Whale Migration Area A Major Whale Migration Area B Seabird Foraging Area 1 Seabird Foraging Area 2 Seabird Foraging Area 3 Seabird Foraging Area 4 Seabird Foraging Area 5 Seabird Foraging Area 6 Whaling Subsistence Area (Wainwright Whaling Subsistence Area (Kaktovik) Sea Segment 1 Sea Segment 2 Sea Segment 3 Sea Segment Sea Segment Sea Segment 6 Sea Segment 7 Sea Segment 8 Sea Segment 9 Sea Segment 10 Sea Segment 11 Sea Segment 12 Sea Segment 13 Sea Segment 14

Oilspill contact probabilities were calculated for three time periods for the ice-cover as well as ice-free seasons. In addition, Appendix B shows contacts to targets during the April 15 - June 15 whale migration period. Because the trajectory model simulates an oilspill as a point, most targets have been given an areal extent slightly greater than they actually occupy. For example, some shoreline targets extend a short distance offshore; this allows the model to simulate a spill that approaches land, makes partial contact, withdraws, and continues on its way. Sea segments were selected by MMS analysts (Anchorage). They are used to get an idea of the distribution of oilspill contacts at sea for different time periods.

To provide a more detailed analysis for land or land-base targets, the model includes a feature that allows subdividing the coastline and openwater boundary into segments. Figure 3 shows the coastline and open-water boundary divided into 100 segments of approximately equal lengths.

#### Estimated Quantity of Oil Resources

Benefits and risks (as well as many environmental impacts) are functions of the volume of oil and are not independent of each other. Greater risks are associated with greater volumes of oil and greater economic benefits. If benefits are evaluated by assuming production of a specific amount of oil, then the corresponding risks should be stated in a conditional form such as, "the risks are ..., given that the volume is ...". If benefits are evaluated for a number of discrete volumes, then risks should likewise be calculated for the same volumes. Any statements about the likelihood of the presence of a particular volume of oil apply equally well to the likelihood of the corresponding benefits and risks.

The estimated oil resources used for oilspill risk calculations in this report correspond to those used by MMS in preparing the draft EIS for the lease offering. If oil is present in the Proposed Lease Area, a conditional mean resource of 3.0 billion barrels is estimated (McMullin, 1983b). This volume is an estimate of the total undiscovered recoverable oil, given that hydrocarbons are indeed present. The conditional mean resource estimate for both the eastern and western deletion alternatives is 2.1 billion barrels (McMullin, 1983a).

For existing leases in the Diapir Field lease area the resource estimates are as follows: sale 71 area, 2.38 billion barrels (USDI, 1982); sale BF area, 0.75 billion barrels (USDI, 1979), Duck Island/Sag Delta, 0.3 billion barrels (Ocean Oil Weekly Report, 1983); Canadian leases, 4.7 billion barrels (Oil and Gas Journal, 1981). The resource estimate for the Candian production is one-half of that listed for entire Mackenzie-Beaufort area because only one-half of this oil province is within the model boundaries. In the case of Canadian production, 1.7 billion barrels (USDI, 1982) of the total 4.7 billion barrels produced would be tankered westward. The other 3.0 billion barrels would be tankered to the east. An assumption was made that only 25 percent of the oilspill risks from Canadian tankers would occur in the Diapir Field study area. The other 75 percent of the oilspill risks would occur along the tanker route which would be outside the study area.

We cannot overemphasize that these estimates are based on the assumption that oil is present. If it is not present (then, obviously), no oilspill risks exist from the proposed lease offering. The remainder of this analysis is designed to answer the question, "What are the risks if oil is found?"

#### Probability of Oilspills Occurring

The probability of oilspills occurring (given that oil is present) is based on the assumption that spills occur independently of each other as a Poisson process and with a rate derived from past OCS experience and dependent upon the volume of oil produced and transported. All types of accidental spills of 1,000 barrels or larger were considered in this analysis, including not only well blowouts, but also other accidents on platforms, transportation of oil to shore, and, in some cases, further transportation from an intermediate terminus to refineries. These types of accidents were classified as either platform, pipeline, or tanker spills. By including all of these risks, the risks of the proposed OCS leasing can be compared to those of other alternatives.

Lanfear and Amstutz (1983) examined oilspill occurrence rates applicable to the U.S. OCS. Basing their results upon new, more recent, and more complete data bases than were available for earlier OSTA models, they recommended updated spill rates for pipeline spills and some significant changes in the spill rates for platforms and tankers. This analysis uses the new spill rates for all accident categories.

Spill rates for OCS platforms are based on the record for the U.S. OCS (Gulf of Mexico, and California) from 1964 through 1980, in which 5 spills of 10,000 barrels or larger are noted, along with 7 spills of 1,000 to 10,000 barrels in size. Nakassis (1982) conducted a statistical analysis of the record, 1964-1979, and concluded that the platform spill rate did not remain constant since 1964, but had decreased significantly. Using this trend analysis and updating for the 1980 data, the spill rate for platform spills of 1,000 barrels or larger is 1.0 spills per billion barrels produced; and the spill rate for platform spills of 10,000 barrels or larger is 0.44 spills per billion barrels produced.

As with platform spills, the spill rate for pipelines is based on the record for the U.S. OCS from 1964 through 1980. Two spills of 10,000 barrels or larger are in the data base, along with 6 spills of 1,000 to 10,000 barrels in size. No trend in the pipeline spill rate is evident. The spill rate for pipeline spills of 1,000 barrels or larger is 1.6 spills per billion barrels transported, and the rate for spills of 10,000 barrels or larger is 0.67 spills per billion barrels transported.

For tanker spill rates, previous OSTA models for Alaska used data for years prior to 1973. Using a new data base (The Futures Group, and World Information Systems, 1982) covering the years 1974 through 1980, Lanfear and Amstutz (1983) concluded that the tanker spill rate (expressed as spills per billion barrels transported) since 1974 was only about a third found prior to 1973. Thus, this oilspill analysis uses a significantly lower tanker spill rate than the earlier models. From 1974 through 1980, the data base contains records of 57 tanker spills of crude oil of 10,000 barrels or larger and another 57 spills of 1,000 to 10,000 barrels. During this period, approximately 88 billion barrels of oil were Lanfear and Amstutz (1983) were able to separate the 114 transported. tanker spills into those occurring in port (i.e., inland of the breakwater, etc.) and those occurring at sea. While this information does not affect predictions of the overall occurrence rate, it does affect assumptions about where spills are likely to occur, and the appropriate weights were assigned along tanker routes to account for "at sea"/"in port" spills. The overall spill rate for tanker spills of 1,000 barrels, or larger, is billion barrels transported (0.90 at sea, and 0.40 in 1.3 spills per port), and the rate for spills of 10,000 barrels, or larger, is 0.65 spills per billion barrels (0.50 at sea, and 0.15 in port).

In summary, the spill rates, expressed as number of spills per billion barrels produced or transported, used in this report are:

	<u>&gt;</u> 1,000 bb1	<u>&gt;</u> 10,000 bb1
Platforms	1.0	0.44
Pipelines	1.6	0.67
Tankers (at sea)	0.9	0.50
Tankers (in port)	0.4	0.15

Oilspill occurrence estimates for spills greater than 1,000 barrels and greater than 10,000 barrels (Table 1) were calculated for production and transportation of oil over the 27-year expected production life of the Diapir Field Leases. Similar estimates were also calculated for production and transportation of oil from existing leases and for transportation of Canadian oil.

#### Oilspill Trajectory Simulations

trajectories were simulated by Flow Industries, Inc. Kent, and the Rand Corporation, Santa Monica, Washington (Thomas, 1983) California (Liu and Leendertse, 1981). The Flow model simulated trajectories during the ice cover (winter) season (approximately October through mid-July) and the Rand model simulated trajectories during the open-water (summer) season approximately mid-July through September). The quasi-steady model of ice dynamics used by Flow incorporates a momentum equation which balances the forces due to: stress exerted by the atmosphere on the upper ice surface, stress exerted by the ocean on the under ice surface, Coriolis effects, sea surface elevation, and internal ice stress divergence. Ice response fields were computed over a range of wind and current conditions as well as ice strength conditions. currents were assumed to be the long-term mean geostrophic velocity field derived from the dynamic topography of Newton (1973). Average daily atmospheric pressure fields for the years 1979 and 1980 as reported by Thorndike and Colony (1980, 1981) were used to compute wind stress. The basic three-dimensional model developed by Rand is formulated according to the equations of motion for water and ice, continuity, state, the balance of mass, heat, salt, pollutant, and energy on a three-dimensional finite-difference grid. This allowed for the computation of the vertical density structure and the residual tidal circulation. The residual circulation could also be computed by digitally filtering at regular time intervals, the flow fields using a tidal eliminator. Local wind stress was modeled using a method called the unit response function. functions are generated by the differences in the currents in the three-dimensional field with and without wind stress under identical tidal conditions. Under ice-free conditions, the respose function (coupled to a stochastic weather model) together with the local residual current, was used to compute the movement of oil. The stochastic weather model incorporates a Markov transition matrix of weather types as categorized by Putnins (1966). Oil movement beneath the ice is more complicated. When the relative speed between the ice and the water is below a critical or threshold level, the oil will be contained by the underside roughness of the ice, and thus will move with the ice. The threshold value is a function of the density of oil and water, the surface tension between oil and water, the underside roughness of ice, and the thickness of oil. When the threshold value is exceeded the oil begins to move at a speed proportional to the speed of the water.

Using the Flow model, 30 oilspill trajectories were simulated from each of 30 launch points (P1-P30) at three times during the winter season. Simulations were made for spills occurring on October 15, January 1, and April 1. These times were selected to represent different ice conditions in the Beaufort Sea. It was assumed that spills launched on October 15 represented ice conditions during the October through November period. January 1 spills represented ice conditions during December through March and April 1 spills represented ice conditions during April through mid-

July. The position of the oil (trapped in ice) was reported every 15 days. Spill movement stopped during the winter when (1) the oil/ice was incorporated into fast ice, (2) the oil/ice moved beyond the boundaries of the study area, (3) the oil/ice remained at sea at the time of ice break-up (approximately mid-July). The trajectories in the first and third categories were used to define another set of launch points that would represent the position of oilspills that started during the winter season and remained in the study area at the time of ice breakup. These launch points (P34-P60) are shown in figure 2. These 27 points (P34-P60) were derived from the distribution of winter spill end points using the criteria that each of them be at least within 50 km of any winter spill end point. Launch points P31-P33 represent platform locations in the Canadian lease area.

During the open-water season, 30 oilspills were simulated by the Rand model from each of the original 30 launch points (P1-P30), from the points representing the Canadian leases (P31-P33), and from points representing the positions of winter spills at ice breakup (P34-P60). The time step for the Rand model was 12 hours.

The trajectories simulated by these models represent only hypothetical pathways of oil slicks and do not involve any direct consideration of cleanup, dispersion, or weathering processes which could determine the quantity or quality of oil that might eventually come in contact with targets. An implicit analysis of weathering and decay can be considered by noting the age of simulated oilspills when they contact targets. For this analysis, three time periods during the open-water season were selected: 3, 10, and 30 days, to represent implicit measures of oil weathering, as well as matters relating to containment and cleanup.

When calculating probabilities from Monte Carlo trials it is desirable to estimate the error associated with this technique. The standard deviation,  $\underline{s}$ , for a particular binomial probability,  $\underline{p}$ , is calculated as follows:

$$s = SQRT(p(1-p)/N)$$

where  $\underline{N}$  = number of trials. The shape of this distribution approximates the normal curve. Table 1a shows, for the 90-percent confidence level of this distribution, values of  $\underline{s}$  as a function of  $\underline{p}$  and  $\underline{N}$ .

The probability that, if an oilspill occurs at a certain location, or launch point, it will contact a specific target within a given time-of-travel (under the circumstances described above) is termed a conditional probability, because it is conditioned on oilspill occurrence. Each entry in tables 2 through 37 represents the probability (expressed as percent chance) that, if a spill occurs at certain launch point, it will contact a particular target or segment within a certain time period. For the winter season, the time periods of oilspill contact were 15 days, 30 days, and during the winter season. For the summer season, the time periods were 3, 10, and 30 days.

## Combined Analysis of Oilspill Occurrence and Oilspill Trajectory Simulations

In calculating the combined or "overall" probabilities of both spill occurrence and contact, the following steps are taken:

- (1) For a set of <u>nt</u> targets and <u>nl</u> launch points, the conditional probabilities can be represented in a matrix form. Let [C] be an <u>nt</u> x <u>nl</u> matrix, where each element  $\underline{c(i,j)}$  is the probability that an oilspill will hit target  $\underline{i}$ , given that a spill occurs at launch point  $\underline{j}$ . Note that launch points can represent potential spill starting points from production areas or transportation routes.
- (2) Spill occurrence can be represented by another matrix [S]. With nl launch points and ns production sites; the dimensions of [S] are nl x ns. Let each element s(j,k) be the expected number of spills occurring at launch point j due to production of a unit volume of oil at site k. These spills can result from either production or transportation. The s(j,k) can be determined as functions of the volume of oil (spills per billion barrels). Each column of [S] corresponds to one production site and one transportation route. If alternative and mutually exclusive transportation routes are considered for the same production site, they can be represented by additional columns of [S], effectively increasing ns.
  - (3) Define matrix [U] as:

j

$$[U] = [C] \times [S]$$
.

Matrix [U], which has dimensions  $\underline{nt}$  x  $\underline{ns}$ , is termed the unit risk matrix because each element  $\underline{u(\underline{i},\underline{k})}$  corresponds to the expected number of spills occurring and contacting target  $\underline{i}$  due to the production of a unit volume of oil at site  $\underline{k}$ .

(4) With [U], it is a relatively simple matter to find the expected contacts to each target, given a set of oil volumes at each site. Let [V] be a vector of dimension ns, where each element  $\underline{v}(\underline{k})$  corresponds to the volume of oil expected to be found at production site  $\underline{k}$ . Then, if [L] is a vector of dimension  $\underline{nt}$ , where each element  $\underline{1}(\underline{i})$  corresponds to the expected number of contacts to  $\underline{target i}$ :

$$[L] = [U] \times [V].$$

Thus, estimates of the expected number of oilspills that will occur and contact targets (or land segments) can be calculated. (Note that as a statistical parameter, expected number can assume a fractional value, even though fractions of oilspills have no physical meaning.)

Using Bayesian techniques, Devanney and Stewart (1974) showed that the probability of  $\underline{n}$  oilspill contacts can be described by a negative binomial distribution. Smith and others (1982), however, noted that when actual exposure is much less than historical exposure, as is the case for most oilspill risk analyses, the negative binomial distribution can be approximated by a Poisson distribution. The Poisson distribution has a significant advantage in calculations because it is defined by only one parameter, the expected number of spills. The matrix [L] thus contains all the information needed to use the Poisson distribution: if  $\underline{P(n,i)}$  is the probability of exactly  $\underline{n}$  contacts to target  $\underline{i}$ , then:

$$P(n,i) = [1(i)^{n} * exp(-1(i))]/n!$$

A critical difference exists between the conditional probabilities calculated in the previous section and the overall probabilities calculated in this section. Conditional probabilities depend only on the winds and currents in the study area -- elements over which the decisionmaker has no control. Overall probabilities, on the other hand, will depend not only on the physical conditions, but also on the course of action chosen by the decisionmaker; that is, choosing to sell or not to sell the lease tracts. The overall probabilities for this analysis are presented in the following tables:

Tables 38 to 53 show the probabilities of one or more oilspill (either 1,000 and 10,000 barrels and greater) and the expected numbers (means) of such oilspills occurring and contacting targets or segments within certain time periods over the expected production life of the lease area. A comparison of the proposed action with the two deletion alternatives was performed. The oilspill risks of the proposed action was also examined in a cumulative context by examining the risks from existing leases and the production and transportation of Canadian oil through the study area.

#### Conclusions

This analysis characterizes the oilspill risks associated with the Diapir Field lease offering (June 1984). Assuming the conditional mean resource estimate, the proposed lease offering will result estimated 3.0 billion barrels of oil being found and produced off the North Alaska coast over a period spanning 27 years. There is a 16 percent chance that no spills of 1,000 barrels or larger will occur and contact land within 30 days during the open water season. There is an 83 percent chance that sometime during this 27 year period 1 to 2 spills of 1,000  $\,$ barrels or larger could occur due to the proposed lease offering and contact land (during the open water season) after being at sea less than The risks from spills would be mitigated to the extent that weathering and decay of oil occurs at sea, and by the success of any spill countermeasures which would be attempted; these effects were not directly included in this oilspill model, but should be considered in translating the spill contacts predicted by this study into spill impacts. for environmental analysis.

For purposes of comparison, risks from existing sources of potential oilspills were also charterized over the same 27 year period as the proposed leases. These risks include all existing oil leases as well as tanker transportation of Canadian oil through the study area; together they represent more than 8 billion barrels produced and/or transported over 27 years. It is estimated that over the next 27 years these existing sources will result in 2 to 12 spills of 1,000 barrels or larger occurring and contacting land during the open water season. (Again, these estimates do not include weathering or spill countermeasures).

Two tract deletion alternatives were considered in this analysis, each decreasing the probability of oilspill occurrence and contact to land. For the west deletion alternative, the probability that no spills will occur and contact land within 30 days (during the open water season) is 18 percent while the east deletion increases this probability to 33 percent.

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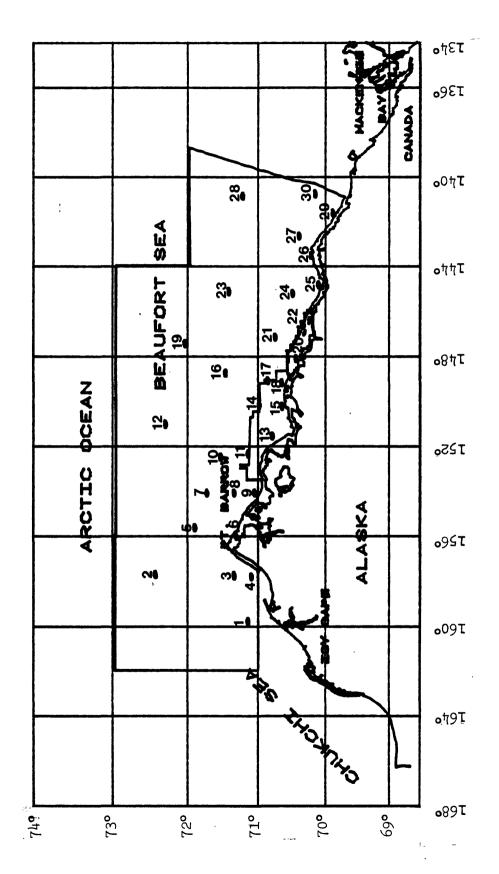


Figure 1. -- Map showing the Diapir Field OCS Lease Offering study area and the initial oilspill launch points, Pl-P30.

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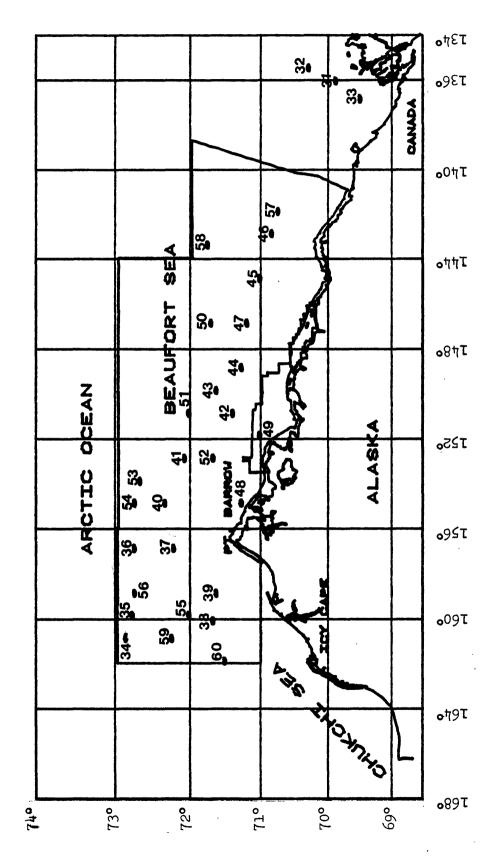
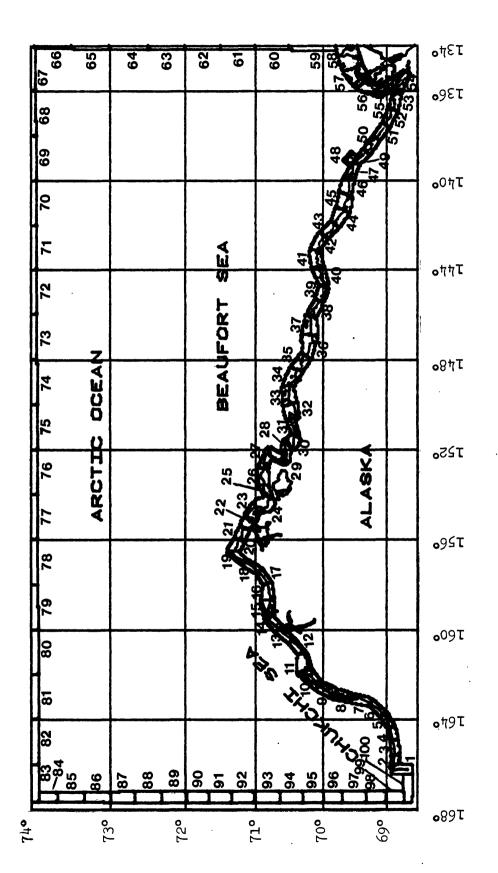


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Table 1. -- Oilspill probability estimates for spills greater than 1,000 and 10,000 barrels resulting over the expected production life of the Diapir Field Lease Offering, from existing Federal and State leases, and from existing oil transportation in the study area.

	-	Expected number of spills from platforms	number s from s	Expected number of spills from transportation >1,000 >10,000	number s from tation 10,000	Total Number of Spills >1,000 >10,	Total Number of Spills >1,000 \text{\rightarrow}10,000	Probability of one or more sp. (platforms)	Probability of one or more spills (platforms)	Probability of one or more spills (transportation)	y of e spills ation)
<u>a</u>	Proposed action (3.0)*	3.0	1.3	4.8	2.0	7.8	3°3	0.95	0.73	66*0	98•0
_	<pre>East deletion (2.1)*</pre>	2.1	6.0	3.4	1.4	5.5	2.3	0.88	0.59	76.0	0.75
	West deletion (2.1)*	2.1	6.0	3.4	1.4	5.5	2.3	0.88	0.59	76*0	0.75
	Existing leases (3.4)*	3.4	1.5	5.5	2.3	8.9	3.8	0.97	0.78	+66*0	06*0
	Production and transportation of Canadian oil (4.7)*	4.7	2.1	7.9	3.4	12.6	5.5	66*0	0.88	+66*0	0.97+

\*Assumed amount of oil in billion barrels

Table la. -- Monte Carlo error as a function of the number of trials and the estimated probability.

j

		NUMBER	NUMBER OF TRIALS							
PROB	2	50	<b>9</b>	9	20	100	200	200	1000	2000
0.02	0.07	90.0	0.04	0.03	0.03	0.02	0.02	0.01	0.01	0.01
0.04	0.10	0.07	0.05	9.08	50.0	0.03	0.02	0.01	0.01	0.01
90.0	0.12	60.0	90.0	90.0	90.0	0.04	0.03	0.02	0.01	0.01
0.08	0.14	0.10	0.07	0.07	90.0	0.04	0.03	0.02	0.01	0.01
0.10	0.16	0.11	80,0	0.07	0.07	9.08	0.04	0.02	0.02	0.01
0.12	0.17	0.12	90.0	90.0	90.0	90.0	0.04	0.02	0.02	0.01
0.14	0.18	0.13	60.0	90.0	0.08	90.0	0.04	0.03	0.02	0.01
0.16	0.19	0.14	0.10	0.09	60.0	90.0	0.04	0.03	0.02	0.01
0.18	07.0	0.14	0.10	0.09	0.09	90.0	0.04	0.03	0.05	0.01
0.20	0.21	0.15	0.10	0.10	60.0	0.07	90.0	0.03	0.02	0.01
0.22	0.22	0.15	0.11	0.10	0.10	0.07	90.0	0.03	0.02	0.02
, 42.0	0.22	0.16	0.11	0.10	0.10	0.07	0.05	0.03	0.02	0.02
0.26	0.23	0.16	0.11	0.11	0.10	0.07	90.0	0.03	0.05	0.02
0.28	0.23	0.17	0.12	0.11	0.10	0.07	9.05	0.03	0.02	0.02
0.30	0.24	0.17	0.12	0.11	0.11	0.08	0.05	0.03	0.02	0.02
0.32	0.24	0.17	0.12	0.11	0.11	0.08	90.0	0.03	0.02	20.0
0.34	0.25	0.17	0.12	0.12	0.11	0.08	90.0	0.03	0.02	0.02
0.36	0.25	0.18	0.13	0.12	0.11	0.08	, 90.0	0.04	0.03	0.02
0.38	0.25	0.18	0.13	0.12	0.11	0.08	90.0	0.04	0.03	0.02
0.40	0.26	0.18	0.13	0.12	0.11	0.08	90.0	0.04	0.03	0.02
0.42	0.26	0.18	0.13	0.12	0.12	0.08	90.0	0.04	0.03	0.02
0.44	0.26	0.18	0.13	0.12	0.12	80.0	90.0	0.04	0.03	0.02
0.46	0.26	0.18	0.13	0.12	0.12	0.08	90.0	0.04	0.03	0.02
0.48	0.26	0.18	0.13	0.12	0.12	90.0	90.0	0.04	0.03	0.02
0.50	0.26	0.18	0.13	0.12	0.12	0.08	90.0	0.04	0.03	0.02
Level of signifi	significance	6	percent	•						

fable 2. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 15 days. Oilspill trajectory simulations initiated on October 15.

Taruet							H y DO	thet	cal		ب		_											
	<u>.</u>	P 2	P 3	5 d	P 5	P 6	P 7	80	6 4	P10 f	P11 P	P12 P13	<u> </u>	4 P1	5 P16	P17	P18	P19	65d	P 2.1	P 2 2	P 2.3 P	54 F	52
Land	c	c	c	c	c	c	c							c		c	c	c	c	c	c			c
Bowhead Feeding A	c	c	c	c	<b>c</b>	c	<b>c</b>					Ĭ		13		c	c	c	c	c	<b>c</b>			c
1 Feeding	c	c	c	c	c	c	c			•				C		c	c	c	c	c	E			_
Betuga Conc. A	c	c	c	c	c	c	c							c		c	c	c	c	c	c			c
Beluga Conc. B	c	c	c	c	c	c	c							c		c	c	c	c	c	c			c
Major Whale Miyr. A	:	c	*	87	c	*	87							c		c	c	c	c	c	c			c
whale	c	_	<b>c</b>	<b>c</b>	c	۲,	:							c	_	c	c	*	c	c	c			c
Seabird Area 1	c	c	<b>c</b>	c	c	. c	c	c	c	c	c	c c	c	c	c	c	c	c	c	c	c	c	c	c
Seabird Area 2	c	_	c	c	c	c	c							c		c	c	c	c	c	c			c
Seabird Area 3	c	c	c	c	<b>c</b>	c	c							<b>C</b>		c	c	c	53	c	c			c
abird Area	c	c	c	c	c	c	c							c		c	c	c	c	c	c		-	0
Seabird Area S	c	<b>c</b>	c	c	c	c	c							c		c	c	=	c	c	c			c
Seabird Area 6	c	c	c	c	c	c	<b>c</b>							c		c	c	c	c	c	c			c
	c	<b>c</b>	*	*	*	*	6							c		c	c	<b>c</b>	c	c	=			c
Whaliny (Kaktovík)	c	c	c	c	c	c	c							c		c	c	c	c	c	* *			•
<del>ت</del> ن	c	c	.∽1	~	c	c	c							c		c	c	c	c	c	c			c
ea Seyment	c	<b>c</b>	26	20	c	c	c							_		c	c	c	c	c	c			5
Sea Segment 3	c	c	c	c	11	c	.02							c		<b>c</b>	c	c	c	c	c			c
Sea Segment 4	<b>c</b>	c	c	<b>c</b>	<b>c</b>	c	*		•					C		c	c	c	c	c	c			2
Sea Seyment 5	c	c	c	c	c	c	c							c		c	c	c	c	c	c			c
ea Seiment	c	c	c	<b>c</b>	c	c	c					,	_	c		37	c	c	c	c	c			c
ea Seyment	<b>c</b>	c	<b>c</b>	<b>c</b>	c	c	c				•			c		*	c	c	c	37	c			c
Sea Sequent 8	c	c	c	c	<b>c</b>	c	c							<b>c</b>		c	c	<b>c</b>	<b>c</b>	*	c	_		c
Sea Segment 9	<b>c</b>	c	<b>c</b>	c	c	c	c							c		c	c	c	c	c	c			٦
Sea Sejment 10	<b>c</b>	c	<b>c</b>	c	c	c	<b>c</b>							c		c	c	c	c	c	c			c
e a	<b>c</b>	c	c	<b>c</b>	<b>c</b>	c	c				•			c		c	c	c	c	c	c			c
Sea Seyment 12	<b>c</b>	c	c	c	c	c	c							c		c	c	c	c	c	c			c
Sea Segment 13	c	c	c	c	c	c	c							c		c	c	c	c	c	c			c
Sea Seament 14	c	c	c	c	c	c	c							c		c	c	c	c	c	c			c

Note: \*\* = Greater than 99.5 percent; n = less than 0.5 percent. \*\*\* MMS DRAFT \*\*\*

Table 2. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 15 days. Oilspill trajectories initiated on October 15.

						Hypothetical Spill Location
•	P 26	P 2 7	P 28	P 29	P 30	
Land	c	c	c	c	c	
Bowhead Feeding A	c	c	c	c	c	
Bowhead Feeding B	c	c	c	*	c	
Beluga Conc. A	c	c	c	c	c	
Beluga Conc. B	c	c	c	c	c	
Major Whale Miyr. A	c	c	c	c	c	
Major Whale Migr. B	c	c	*	c	c	
Seabird Area 1	c	c	<b>c</b>	c	c	
Seabird Area 2	c	_	c	_	c	
Seabird Area 3	c	c	c	c	c	
Seabird Area 4	c	c	c	c	c	
Seabird Area 5	17	=	c	M	c	
Seabird Area 6	c	c	c	*	c	
Whaling (Vainwright)	c	c	c	c	c	
	*	*	c	25	20	
Sea Seyment 1	c	c	c	c	c.	
Sea Seyment 2	c	c	c	c	c	
	<b>c</b>	c	c	c	c	
	c	_	c	c	c	•
Sea Segment 5	c	c	c	c	c	
	c	c	c	5	c	
	_	c	c	c	c	
	c	c	c	c	c	
	c	c	c	۲,	c	
Sea Segment 10	~	27	c	c	c	
Sea Segment 11	c	c	c	c	33	
	c	c	c	c	c	
Sea Seyment 1.3	c	c	·c	c	c	
Sea Segment 14	c	•	•	c	c	

Note: \*\* = Greater than 99.5 percent; n = less than 0.5 percent, \*\*\* MMS DRAFT \*\*\*

Telephone Street

Table 3. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular locution will contact a certain target within 30 days. Oilspill trajectory simulations initiated on October 15.

·.

	4 P25							c																						
	3 P2							c																•						
	2 P 2	c	c	c	c	c	c	*	c	c	C	c	c	c	c	c	c	c	c	c	C	_	c	c	c	c	c	c	c	•
	P 2 ?	c	c	<b>c</b>	c	c	c	c	C	c	c	c	c	c	c	*	c	c	c	=	c	c	c	~	c	c	c	c	c	•
	P 2 1	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	1,	73	*	c	c	c	c	c	c
	P 2 0	c	c	c	c	c	c	c	c	c	29	c	c	c	c	c	c	c	c	c	c	_	c	c	c	c	c	c	c	•
	P19	c	c	c	c	c	c	*	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	<b>c</b>	c	c	c	c
	P18	_	13	c	c	c	c	<b>c</b>	c	<b>c</b>	c	c	c	c	c	c	c	c	c	c	c	10	2	c	c	c	c	c	c	c
	P17	c	c	c	c	c	~	7	c	c	c	c	c	c	c	c	c	c	c	c	10	09	*	c	c	c	c	c	c	c
	P16	c	c	c	c	c	c	#	c	c	c	<b>c</b>	c	c	c	c	c	٤	c	c	c	_	c	c	c	c	c	c	c	c
	P15	c	. 05	c	c	c	c	c	c	c	c	c	c	c	7	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	P14	c	7	c	c	c	10	23	c	c	c	c	c	c	M	c	c	c	c	c	9	93	c	c	c	c	c	c	c	c
ion	P13	c	93	c	c	c	~	c	c	ŀŪ	c	c	c	c	23	c	c	c	c	c	~	c	c	<b>c</b>	c	c	c	c	c	•
ocat	P12	c	c	c	c	c	c	*	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	<b>c</b>	c	c	c
ב ב	11	c	25	c	c	c	43	10	c	c	c	E	c	c	47	c	c	c	c	c	90	c	Ę	c	c	c	c	c	c	•
Spi	P10	c	c	c	c	c	20	*	c	c	c	c	c	c	77	c	c	c	23	25	c	c	c	c	c	c	c	c	c	c
ical	ь 3							c																						
thet	8 8							c																						
Hypo																														
_	P 6							c											-											
	P 5							c																						
	- ъ	c	c	c	c	c	•	c	c	c	c	c	c	c	*	c	٣	m	c	c	c	c	c	c	c	c	c	c	c	c
	₽3	c	c	٤	c	c	•	c	c	c	c	c	c	c	*		43	•	c	c	c	c	c	c	<b>c</b>	c	c	c	c	c
	P2	c	c	c	c	c	c	_	_	c	c	c	c		•				c	c	c	c	c	c	c	c	c	c	c	_
	E .	c	c	c	c	c	*	c	_	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	=
	u.						•																							
yet		od.	Bowhead Ferding A	Bowhead Feeding B	uga Conc. A	uya Conc. B	Major Whale Migr. A	or Whale Migr. B	eabird Area 1	Seabird Area 2	Seabird Area 3	Seabird Area 4	Seabird Arca 5		Whaling (Wainwright)	Whaling (kaktovik)	Segment 1	Segment 2	Seyment 3	Seyment 4			Segment 7	Seyment 8	Seyment 9	Seyment	Seyment 11	Segment 12	Seyment 13	Secoment 14
Tarye		Land	HOH	NOS	Beluga	Beluga	Ma j	fla jor	Seat	Seat	Seal	Sea	Seal	Seal	Wha	4 4 4	Sea	Sea	Sea	Sed	Sea	Sea	Sea	Sea	Sea	Sea	Sea	Sea	Sea	200

Note: \*\* # Greater than 99.5 percent; n # less than 0.5 percent, \*\*\* MMS DRAFT \*\*\*

Table 3. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting

-	lays	
	30 0	
THE PROPERTY OF THE PROPERTY O	at a particular location will contact a certain target within 30 days 0ilspill trajectories initiated on October 15.	
,		

	Target						Hypothetical Spill Location
	1	P26	P 2 7	P 28	P29	P30	
	Land	c	_	<b>c</b>	c	c	
	Bowhead Feeding A	c	c	c	c	=	
	Bowhead Feeding B	c	c	c	*	~	
	_	c	c	c	c	c	
	Beluga Conc. B	c	c	c	c	c	
	Whale	c	c	c	c	c	
	iale Migr.	c	c	*	c	c	
	d Are	c	c	c	c	c	
	Seabird Area 2	c	c	c	c	c	
	Seabird Area 3	c	c	c	c	c	
	Seabird Area 4	c	c	c	c	۔	
	Seabird Area 5	17	c	c	43	c	
		c	c	c	*	c	
	Whaling (Wainwright)	c	c	c	c	<b>c</b>	
		*	*	c	06	11	-
	Sea Segment 1	c	c	<b>c</b>	c	c	
		c	c	c	c	c	-
		c	c	c	c	c	
2		c	c	c	c	c	
Λ		c	<b>c</b>	c	c	c	
	Sea Scyment 6	£	c	c	c	c	•
	Sea Seyment 7	c	c	c	c	c	
		7	c	c	c	c	
	Sea Segment 9	c	c	c	c	c	
	Sea Seyment 10	m	37	c	c	10	
	Sea Segment 11	c	c	c	· c	47	
	e a	c	c	c	c	c	
	Sea Seyment 13	c	c	c	c	c	
	Sea Segment 14	<b>c</b>	c	c	c	c	

Note: \*\* = Greater than 99.5 percent; n = less than 0.5 percent, \*\*\* MMS DRAFT \*\*\*

Table 4. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target during the winter season. Oilspill trajectory simulations initiated on October 15.

Land  Bowhead Feeding A  Bowhead Feeding B  Beluga Conc. A  Major Whale Migr. A  Major Whale Migr. B  Seabird Area 3  Seabird Area 5  Seabird Area 5  Nhaling (Wainwright)  Sea Segment 3  Sea Segment 5  Sea Segment 6  Sea Segment 7  Sea Segment 8  Sea Segment 7  Sea Segment 7  Sea Segment 7  Sea Segment 7  Sea Segment 8  Sea Segment 7  Sea Segment 7  Sea Segment 7  Sea Segment 7  Sea Segment 8  Sea Segment 8  Sea Segment 7  Sea Segment 7  Sea Segment 8  Sea Segment 8	C C C C C C C C C C C C C C C C C C C		4 71 7 7 7 8		_		914 91	) Ld	× 1 × 1	<b>-</b>	20 Pc	21 P2	2 P 2.5	P 2 4	
ding A	C C C C C C + C C C C C +														7.63
ding A  diny B  Migr. A  Migr. B  Migr. B  A  A  A  A  A  A  A  A  A  A  A  A  A	C C C C C * C C C C C C *						c						c	~	43
Ainy B	ccc~ * ccccc *						c						c	c	ء
Migr. A	c c ~ * c c c c c *						c						c	c	c
Migr. A	c > * c c c c c c *						c						c	c	_
Migr. A ** h ** ** h ** h ** h ** h ** h **	~ * C C C C C *						c						_	c	c
#igr. B	* C C C C C C *						17						~	7	c
a 1	c c c c c c *			** 13	63	33	*	11	\$ 25	2 **	23 80	17	•	83	2.2
a 3 a 4 a 5 inwright)	c c c c c *						c						c	c	c
Area 3  Area 4  Area 5  Area 6  Area 6  (Wainwright)	c c c c •						c						c	c	_
Area 4  Area 5  Area 6  Area 6  (Wainwright)	c c c •						c						c	c	c
Area 5  Area 6  (Wainwright)	c c •						c						c	c	20
Area 6  (Mainwright)	c :						c						c	c	c
(Wainwright)	*						c						c	c	c
ktovik)  1  2  3  3  4  6  7  7  6  7  7  7  7  7  7  7  7  7							37						13	2	~
1 2 4 4 4 5 6 6 7 7 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9	c						c						c	~	*
2 4 60 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	c						c						c	c	c
3 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	c						c						c	c	c
2	63						30						~	7	~
2	*	-					13						₩	2	c
2	c						c						c	23	7
ent 7	c						c						c	2 5	17
ent 8	c	•					c						<b>c</b>	8 7	43
ent 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	c						c						c	06	25
ent 10	c						c						c	7	c
ent 11 n n n n n n	c						c						c	c	c
0 0 0 0 0	c						c						c	c	c
	c						c						c	c	c
	c						c						c	c	c
	c						c						c	c	c

Note: \*\* = Greater than 99.5 percent; n = less than 0.5 percent, \*\*\* MMS DRAFT \*\*\*

chance) that an oilspill starting it a certain target during the winter season. October 15.

Location

Target						Hypothetical Spill
	P 2 6	P27	P 28	P 29	P 30	•
Land	13	c	c	33	~	
Bowhead Feeding A	c	c	c	c	c	
Bowhead Feeding B	c	c	c	4	M٦	
Beluga Conc. A	c	c	c	c	c	
eluga conc.	c	c	c	c	c	
ajor Whale A	c	c	c	c	c	
ajor Whale M	33	06	*	37	90	
eabird Area	c	c	c	c	c	
eabird Area	c	c	c	c	c	
eabird A	c	c	c	c	c	
eabird Area	c	c	c	c	c	
Seabird Area 5	17	c	c	63	ĸ	
ird Ar	c	c	c	*	c	
ing (Wainwri	c	~	c	c	c	
ing (Kaktovi	*	*	c	*	06	
Seyment	c	c	c	c	c	,
Seyment	c	c	c	ċ	c	
2	c	c	c	c	c	
Seyment	c	~	c	c	~	
Seyment	~	~	c	c	c	
Segment	13	20	c	M	_	
Seyment	43	43	c	17	17	
Segment	20	29	c	37	23	
Segment	13	23	~	20	25	
yment 1	M	37	c	~	53	
Sea Segment 11	c	c	c	c	53	•
egment 1	c	c	c	c	c	
segment 1	c	C	c	¢	c	
4 6 6 6 6 6 6						

Note: \*\* = Greater than 99.5 percent; n = less than 0.5 percent, \*\*\* MMS DRAFT \*\*\*

Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 15 days. Oilspill trajectory simulations initiated on January 1. Table 5.

Target									c a l	Spil	l Loc	atio	c											
	4	P.2 P.3	P3	50	P 5	9 d	4 Zd	88	90	10 P	11 P1	10 ج	3 P1	, p1	S P16	P17	2 20	613	b Su T	P21 P	P 2 5 P	P23 P2	24 PS	2
Land	c	c	c	٠	c				c						c	c	c	۲	ء					_
Bowhead Feeding A	<b>c</b>	c	c	c	c			*	•	_					c	c	۶	c	د					_
Bowhead feeding B	<b>c</b>	c	c	c	c				c						c	c	c	c	c					_
beluga Conc. A	<b>c</b>	c	c	<b>c</b>	c				c						c	د	כ	c	c					_
Beluga Conc. 9	٤	c	c	c	c				c						c	c	۲	c	٦					_
Major Whale Migr. A	•	¢	* *	c	د				c						c	c	۶	۲	c					_
nale Higr.	c	c	c	c	c				•		•				:	ε	c	:	c		•			_
•	c	c	c	c	c				c						c	c	c	c	د					_
	Ξ	c	<b>c</b>	c	c				c						د	<b>c</b>	۲	c	c					_
	c	c	<b>c</b>	c	c				c						c	c	۲	c	c					_
Seabird Area 4	c	c	c	c	c				c						<b>c</b>	c	c	c	c					_
Seabird Area 5	c	c	c	c	c				c	•					c	c	c	c	c					_
Seabird Area 6	c	c	c	c	<b>c</b>				c						c	c	c	c	c					_
3	~	c	:	*	*	*	63 3	37	c	c	c	د	c	c	c	c	c	c	c	c	c	c	د د	_
Whaling (Kaktovík)	c	c	c	c	c				c						c	c	c	c	c	*			*	
٥	c	c	c	c	c				c						_	c	c	c	c					_
Sea Segment 2	c	c	20	c	c				c						c	=	c	c	c					_
a Seyment	c	c	c	c	63				c						c	c	c	c	c					_
ea Segment	c	c	c	c	c				c						c	c	c	c	c					_
ea Segment	c	c	c	c	c		•		c						<b>c</b>	c	c	<b>c</b>	c					_
Sea Segment 6	c	c	c	c	c				c						<b>c</b>	c	c	c	c					_
ea Segment	c	c	<b>c</b>	<b>c</b>	c				c						c	:	c	c	c					_
Sea Segment 9	c	c	د	c	c				<b>c</b>						c	c	c	c	<b>*</b> c					_
ea Se	c	2	2	<b>c</b>	c				c						c	c	c	c	c					_
	c	c	c	c	c				c						<b>c</b>	c	c	۲	c					_
ea Se	c	c	<b>c</b>	c	د				c						<b>c</b>	c	c	c	د					_
еа Ѕедте	c	C	c	c	c				c						c	c	c	c	c					_
ea Se	c	c	c	c	c				c						c	ء	c	c	c					_
Sea Segment 14	c	c	<b>c</b>	c	c				c						c	c	c	c	c					_

Note: \*\* = Greater than 99.5 percent; n = less than 0.5 percent. \*\*\* MMS DRAFT \*\*\*

fable 5. (Continued) of Probabilities (expressed as percent chance) that an oilsoill storting at a particular location will contact a certain tarnet within 15 days. Oilspill trajectories initiated on January 1.

- מידיפר						Hypothetical Spill Location
	P26 P	_	P 2 8	629	P39	
Land		c	c	c	c	
Bowhead Feeding A		c	c	c	c	
Bowhead Feeding B	•	c	c		c	
			c	c	c	
Beluga Conc. 3			c	c	c	
Major Whate Higr. A			c	c	c	
Major Whale Migr. B			*	c	c	
Seabird Area 1			c	c	c	
Seabird Area 2			c	c	c	,
Seabir 1 Area 3			c	c	c	
Seabird Area 4			c	c	c	
Seabird Area 5			c	c	c	
Seabird Area 6			=	*	c	
Whaling (Wainwright)			c	c	c	
Whaling (Kaktovik)	*	•	c	c	10	
Sea Seyment 1		ļ	ç	c	c	
		_	c	C	c	
Segment		_	c	c	c	
Seyment		c	c	c	c	
		c	c	c	c	
Sea Segment 5		c	c	c	c	
Sea Segment 7		c	c	c	c	
Sea Segment 3		c	c	c	c	
		c	c	c	c	
Sea Segment 10		0	_	c	<b>c</b>	
	c	~	_	c	13	
Sea Segment 12		c	c	c	7	
Sea Segment 13		c	c	c	c	
						•

Note: \*\* = Greater than 99.5 percent; n = less than 0.5 percent. \*\*\* MMS DRAFT \*\*\*

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Table 6. -- Probabilities (expressed as percent chance) that an nilspill starting at a particular location will contact a certain target within 30 days. Oilspill trajectory simulations initiated on January 1.

Target	2	P 2	₽3	<b>7</b> d	ρ	94	4y00	othet P8	tical pg	Spill P17 P1	1 Loc	catio 12 P1	c x q	4 P15	P16	, P17	P 1 3	P19	02d	P 21 F	P 2 2 P	23 P	54 P	25
Land	<b>c</b>	c	c	c	c	c	_	د	c					c	c	c	c	c	٤		c			_
Bowhead feeding A	c	<b>c</b>	c	<b>c</b>	c	_	c	c	*					c	٤	c	5	c	c		c			_
Bowhead Feeding 8	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	٦	c	c	c	c	c	c
Beluga Conc. A	<b>c</b>	c	_	c	c	<b>c</b>	c	c	۲					c	c	c	c	۲	c		c			_
Beluga Conc. 8	c	c	c	c	c	c	c	c	د					c	c	c	c	c	5		c			_
Major Whale Migr. A	*	c	*	13	c	*	73	93	c					c	c	c	c	2	c		c			_
ajor Whale A	c	c	c	<b>c</b>	c	c	*	10	c		*			ב	*	c	c	•	ב		•			_
rd Area	c	c	C	c	c	c	c	c	c					c	٤	c	c	c	٥		c			_
e a	c	c	c	c	c	c	<b>c</b>	c	c					c	c	c	c	c	c		c			_
Seabird Area 3	c	<b>c</b>	<b>C</b>	c	c	c	c	2	c					c	<b>c</b>	c	c	c	c		c			_
Seabird Area 4	c	c	_	c	<b>c</b>	c	c	c	c					c	c	c	c	5	c		۲			_
Seabird Area 5	c	c	c	c	c	c	c	c	c					c	_	c	c	c	c		c			c
eabird	<b>c</b>	c	C	c	c	c	c	c	c					c	c	c	c	c	c		c			_
Whaling (Wainwright)	~	c	*	*	*	*	χ «	25	c					c	_	c	د	c	c		c			_
halin	c	c	c	c	c	c	c	c	c					c	c	c	=	c	c	•			•	
e a	c	c	7	<b>c</b>	c	c	c	c	c					c	c	c	c	c	c		c			_
Sea Segment 2	~	c	77	c	c	c	c	c	c					c	<b>C</b>	c	r	c	<b>c</b>		<b>c</b>			_
ea Se	c	c	c	c	83	c	37	c	c					c	c	c	c	c	c		c			_
1 Sea Segment 4	c	c	_	c	<b>c</b>	c	•	7	c					c	_	c	c	c	c		c			_
Sea Seyment 5	<b>c</b>	c	c	c	c	c	c	<b>53</b>	c					<b>د</b>	c	c	c	5	ε		c			_
ea Se	<b>c</b>	<b>c</b>	c	c	c	c	c	c	د				•	٤	c	~	c	c	c		c			_
e a	c	c	_	c	c	c	c	c	c					c	د	*	c	c	c		c			_
Sea Segment 8	c	c	c	c	c	c	c	c	¢					c	c	c	ב	د	c		5	_		_
Sea Segment 7	c	c	c	c	c	c	c	c	c					C,	c	c	c	c	۵		د			_
Sea Segment 10	c	c	<b>c</b>	<b>c</b>	۵	c	c	c	c					c	c	c	c	د	٥		c			_
Sea Segment 11	c	c	_	<b>c</b>	c	c	c	c	c					c	c	c	c	c	c		c			_
Sea Segment 12	c	ح.	c	c	c	c	c	c	c					٤.	c	c	c	c	د		ے			_
a	<b>c</b>	<b>c</b>	_	c	c	c	c	٤	د					c	<b>c</b>	c	c	c	c		c			_
Sea Segment 14	c	/ ء	c !	c	c	c	c	c	c					<b>c</b> .	c	c	c	c	c		c			_

Note: \*\* = Greater than 99.5 percent; n = less than 0.5 percent. \*\*\* MMS DRAFT \*\*\*

Table (. (Continued) -- Probabilities (expressed as percent chance) that an oilspill stirting at a particular location will contact a certain target within % lavy. Oilspill trajectories initiated on January 1.

And the second second

Target						Hypotherical Spill Location
	P 2 6	F27	P 2 8	p 2 9	P₹J	
Land	<b>c</b>	·	c	c	c	
Bowhead Feeding A	c	c	c	c	c	
Bowhead Feeding 3	<b>c</b>	c	c	*	c	
. Conc.	c	c	٤	c	c	
Beluga Conc. 3	c	c	¢	c	c	
	c	<b>c</b>	c	c	c	
nale Mi	c	c	:	c	c	
Are	c	c	c	c	c	
Seating Area 2	c	c	۵	c	c	
Seabird Area 3	c	c	c	c	c	
Seabird Area 4	c	c	c	Ċ	c	
Seabird Area 5	~	2	c	c	c	
Seabird Area 6	د	c	c	*	د	
(Haink	c	c	c	c	c	
Whaling (Kaktovik)	*	*	<b>E</b>	c	20	
ent 1	c	۶	c	c	د	
Sea Segment 2	c	c	c	٥	c	
e a	c	c	c	c	c	
Û	c	c	c	c	c	
Sea Seyment 5	c	<b>c</b>	c	c	c	
e a	<b>c</b>	c	c	¢	د	
e	c	2	c	c	c	
6.9	c	2	٥	د	E	
ea Se	c	~	c	c	c	
e:	E	17	c	۵	c	
Sea Seyment 11	c	7	c	c	37	
Sea Segment 12	c	د	c	c	17	
Sea Seyment 13	c	c	c	c	c	
Sea Segment 14	c	c	c	2	c	

Note: \*\* = Greater than 99.5 percent; n = less than 0.5 percent. \*\*\* MyS DRAFI \*\*\*

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Table 7. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target during the winter season. Oilspill trajectory simulations initiated on January 1.

farget	7	P 2	ρ3	P 4	g R	9	HyD P7	othet	i c a	1 Sp. 1019	111 L	ocati P12 F	ion P13 P	P1 4 P	P15 P.	P16 P1	7 p1	8 P	9 P20	P 21	P > 2	P 2 3	P 2 4	P 2 S
												1												!
Land	c	_	c	c	c	~	c	10	c	c	~	c		-			-		_	c	c	c	c	26
Bowhead Feeding A	_	c	_	c	c	c	c	c	•	c	23	c						5	c	c	c	c	c	c
	c	c	_	c	c	c	c	c	c	c	c	c						=	c	c	٥	c	c	c
Beluga Conc. A	c	c	_	c	c	c	c	<b>c</b>	<b>c</b>	c	c	c						<b>C</b>	c	c	۵	c	c	c
Heluga Conc. B	<b>c</b>	۵	_	c	c	د	c	c	c	c	c	c						_	c	c	c	c	c	c
	*	c	*	*	c	*	17	26	c	5.0	× ×	c						c	c	2	c	c	c	c
Major Whale Migr. B	<b>c</b>	c	_	c	c	c	*	3. 3.	c	4	90	* *	o u	6،	:		2	*	c	56	c	*	29	c
Srabird Area 1	c	c	c	c	c	c	c	c	c	c	c	c						c	c	د	c	c	c	c
Seabird Area 2	c	c	c	c	c	c	c	0	c	c	ċ	c						c	c	c	c	c	c	c
Seabird Area 3	c	c	c	<b>c</b>	c	c	c	c	c	c	c	c						ε	c	c	c	c	c	_
	c	c	c	c	c	c	c	c	c	c	c	c						c	c	<b>c</b>	c	c	c	c
Seabird Area 5	c	د	c	c	c	c	c	c	c	c	د	c						c	c	۲,	2	c	c	c
	c	c	_	c	c	c	c	c	c	c	c	c						c	<b>c</b>	<b>c</b>	c	c	c	c
Whating (Wainwright)	~	c	*	*	*	*	6	93	c	<b>5</b>	93	c			_			c	c	10	c	<b>c</b>	۵	c
Whaling (Kaktovik)	c	c	۵.	c	c	c	c	<	c	c	c	c						c	<b>C</b>	c	*	c	c	*
ea Seyment	27	c	33	23	c	c	c	c	c	c	c	c						c	, <b>c</b>	c	c	c	c	c
ea Segment	23	c	11	93	c	c	c	c	c	c	c	c						c	c	c	c	c	c	c
e a	c	c	c	c	8	٤ ۶	<b>€</b>	23	c	20	63	c			•			c	c	٠,	c	c	c	c
ea Seyment	c	c	_	c	c	~	*	80	د	17	80	c						٤	c	13	c	c	<b>c</b>	c
Sea Segment	c	c	c	c	c	c	c	23	c	c	06	c		•				_	c	23	c	c	<b>~</b> :	د
6 9	c	c	<b>c</b>	c	c	c	c	c	c	c	~	c						c	c	17	<b>c</b>	<b>c</b>	۷	c
ea Seyment	c	Ė	c	c	c	c	c	c	c	c	c	c						c	c	11	c	د	4.0	c
e a	c	c	c	c	c	c	c	c	c	c	c	c						c	c	4	c	c	87	c
Sea Segment 7	c	c	c	c	c	c	c	c	c	c	c	c						c	c	<b>c</b>	_	c	10	c
Sea Segment 10	c	c	c	c	c	c	c	c	c	c	c	c						c	c	c	C	c	c	c
ea Segwent 1	c	c	c	C	c	c	c	c	c	c	c	c						c	c	c	c	c	c	c
ea Seyment 1	c	c	<b>c</b>	c	c	c	c	c	c	c	c	c						C	c	c	c	c	c	c
a Se	c	c	<b>c</b>	c	c	c	c	c	c	c	c	c						_	c	c	c	د	c	<b>c</b>
ea Segment 1	c	c	c	c	<b>c</b>	c	c	c	c	c	c	c						c	<b>c</b>	c	c	c	c	c

Note: \*\* = Greater than 99.5 percent; n = less than 0.5 percent. \*\*\* AMS ORAFT \*\*\*

lable 7. (Continued) -- Probabilities (exoressed as percent chance) that an oilspill starting at a particular location will contact a certain target during the winter season. Oilspill trajectories initiated on January 1.

Target					•	Hypothetical Spill Location	bill	Location
	P 26	P27	P 2 8	6 Z d	ρ₹ŋ			
Land	5.0	<b>c</b>	۶	29	c			
Bowhead Feeding A	c	c	c	c	c	`		
Bowhead Freding B	c	c	c	*	~			
Betuga Conc. A	c	c	c	c	c			
Beluga Conc. B	c	c	c	c	c			
Major Whale Tigr. A	c	۶	c	c	c			
Major Whate Migr. B	30	20	*	c	27			
Seabird Area 1	c	c	c	c	c			
Seabird Area 2	c	c	c	c	د			
Seabird Area 3	c	c	c	c	c			
Seabird Area 4	c	c	c	c	c			
Seabird Area 5	30	c	c	13	c			
Seabird Area 6 .	c	c	c		c			
Whaling (Wainwright)	c	_	c	c	5			
(Kaktovi	*		c	33	63			
Ü		c	c	c	c			
e a		c	c	c	c			
E 9	c	c	c	c	c			
e		c	c	c	c			
ea Se		c	c	c	c			
ea Se		c	c	c	c			
Sea Segment 7	10	c	c	c	c			
نە		M	5	~	c			
ea Se	13	25	c	٧	63			
Sea Segment 10		20	c	c	8 3			
ea Se	c	O.	c	c	87			
a Segment 1	c	~	c	c	27			
Sea Segment 13	c	_	c	c	c			
ea Segment 1	c	c	_	c	c			

at a particular location will contact a certain target within 15 days. Oilspill trajectory simulations initiated on April 1. Table 8. -- Probabilities (expressed as percent chance) that an oilspill starting

									•	٠	torks	•												
larget	<u>-</u>	P 2	P 3	<b>b</b> 4	P 5	P 6	пуро Р 7	P8 P		5p1 (1	1 P12	P13	P14	P15 F	P16 P	P17 P	P13 P	P19 P20	<u>a</u>	21 PZ	2 P23	P 24	P 2 S	
											-c-me													
Land	c	_	c	c	c	c	c	c				c	۵	c				ء			c	c	c	
Bowhead Feeding A	c	c	c	<b>c</b>	c	c	٤	• c			u	c	۵	c							c	c	c	
d Feeding	<b>c</b>	<b>c</b>	c	_	c	c	c	د				c	c	c							c	c	د	
Beluya Conc. A	c	c	<b>c</b>	c	c	د	c	c				c	c	c							<b>c</b>	c	c	
Conc	c	_	c	_	<b>c</b>	E	c	c			<b>-</b>	c	د	c							c	c	c	
whale Migr.	* #	c	*	c	c	*	11	87				c	٤	<b>c</b>							c	c	c	
Whale	c	<b>C</b>	c	c	c	c	*	c	_		<b>#</b> =27	c	c	c			*				*	c	c	
Seabird Area 1	c	<b>c</b>	c	<b>c</b>	c	c	٠.	c	c	c	c 	c	٤.	2	c	c	_	ے	£	c	c	۵	c	
eabird	c	c	c	c	c	c	د	c				c	٤	c							c	c	c	
Seabird Area 3	<b>c</b>	_	c	c	c	c	<b>c</b>	c				c	c	c							<b>c</b>	<u>د</u>	ċ	
Area	c	c	c	c	<b>c</b>	c	٥	c				c	c	د							۵	c	c	
Seabird Area 5	c	c	<b>c</b>	c	c	c	د	c			1.	<b>c</b>	<b>c</b>	c							c	c	c	
	c	c	c	c	<b>c</b>	c	c	c			z	c	c	c							<b>c</b>	<b>c</b>	c	
	<b>c</b>	٤	*	*	*	*	11	25				c	c	c							c	c	c	
	c	c	c	c	c	c	د	c				c	c	c						*	c	c	*	
	c	c	٣	c	c	c	د	ŕ				c	c	c							<b>c</b>	c	c	
Seyment	c	c	06	c	c	c	c	c				c	c	c							c	۵	c	
Seyment	c	c	۵	c	20	<b>c</b>	10	c				c	c	د							c	c	c	
Sea Segment 4	c	c	c	c	c	c	*	c	_			c	c	c							c	c	c	
	c	_	<b>c</b>	c	c	c	د	c				c	c	c							c	c	c	
Seyment	c	c	c	د	c	c	c	c				c	c	د							c	<b>c</b>	c	
	c	c	c	c	c	c	د	c				د	c	c	*						, ,	c	<b>c</b>	
Sejment	<b>c</b>	c	c	c	c	c	c	c				c	c	c					*		c	7	c	
	c	c	c	c	c	c	c	c				c	c	c							c	c	Ç	
	c	c	c	c	c	c	c	c				c	c	c							_	c	c	
Segment 1	<b>c</b>	c	c	c	c	c	c	c				c	c	c							c	c	c	
Segment 1	c	c	c	c	c	_	۵	c				c	c	ح							c	_	c	
Š	c	c	د	c	c	c	c	c				c	۵	c							c	<b>c</b>	<b>c</b>	
Sea Segment 14	c	c	c	c	c	<b>c</b>	c	c				c	c	<b>c</b>							_	c	c	
Note: ** = Greater than 99,5 percent;	n 99.5	ď	rcer			ess	than	0.5	perc	rcent.	*	MMS	DRAFT	*										

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at a particular location will contact a certain target within 15 days. Oilspill trajectories initiated on April 1. Table 8. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting

	Target						Hypothetical Spill Location
		P 2 6	P 2 7	P 2 8	P 29	P 30	
	Land	c	c	c	c	c	
	Bowhead Feeding A	c	c	c	c	c	
	dowhead feeding d	c	c	c	*	٤	
	Beluga Conc. A	c	c	<b>c</b>	c	c	
	Beluga Conc. B	c	c	c	c	c	
	Major Whale Migr. A	c	c	<b>c</b>	c	c	
	Major Whale Migr. B	c	5	*	c	د	
	Seabird Area 1	c	<b>c</b>	c	c	c	
		c	c	5	5	c	
	Seabird Area 3	c	_	c	c	c	
	Seabird Area 4	c	c	د	c	c	
	Seabird Area 5	c	<b>c</b>	c	c	د	
	Seabird Area 6	c	c	<b>C</b>	*	c	
		c	c	5	۲	c	
	Whating (Kaktovik)	*	*	c	<b>c</b>	33	
	_	c	_	c	<b>c</b>	c	
	Sea Segment 2	<b>c</b>	c	<b>c</b>	c	c	
	Sea Segment 3	c	_	c	ح	c	
4	Sea Segment 4	c	_	۲	c	c	•
	Sea Seyment 5	<b>c</b>	c	c	c	c	
	Sea Segment 6	c	<b>c</b>	c	c	c	
	Sea Seyment 7	<	<b>c</b>	c	c	c	
	Sea Seyment 8	c	<b>c</b>	5	c	c	
	Sea Segment 9	c	۲	5	c	۲	
	Sea Sequent 10	c	13	c	<b>c</b>	c	
	Sea Segment 11	5	c	c	c	25	
	Sea Segment 12	c	c	c	c	c	. ••
	Sea Segment 13	c	c	_	c	c	
	Sea Segment 14	c	<b>c</b>	5	c	c	

Note: \*\* # Greater than 99.5 percent; n # less than 0.5 percent. \*\*\* MMS DRAFT \*\*\*

Table 9. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 30 days. Oilspill trajectory simulations initiated on April 1.

Target							Нуро	thet	٩	į	_	3 t i	5											
•	2	P 2	P 3	P4	P 5	9 <del>6</del>	P 2	80	6 d	P10	P11 F	P12 P	13 P	P14 P	15 P	16 P1	7 P13	P19	P 2 0	P 2.1	P 2 2	P 23	P 2 4	P 2 S
Land	c	c	c	c	c	c	c	c	c	c	<b>c</b>						c	c	c	c	c	c	c	c
b e a	2	c	c	c	c	c	c	c	*	c	c						2	=	c	· c	c	c	c	c
Bowhead Feeding B	c	c	c	c	c	c	c	د	c	<b>c</b>	c						c	c	c	c	<u>ر</u>	c	c	_
Beluga Conc. A	c	c	c	c	c	c	c	c	c	c	c						ε	c	c	c	c	c	c	c
Beluga Conc. B	c	c	c	c	c	c	5	c	c	c	د						c	<b>-</b>	c	c	c	c	c	د
ajor Whate Migr.	*	c	*	22	c	*	83	*	c	20	د						c	c	c	c	c	c	c	c
ajor Whale P	c	c	c	c	c	c	*	c	c	•	c				•		c	:	c	c	c	•	د	_
Seabird Area 1	c	c	c	c	c	c	c	c	c	c	c						c	c	c	c	c	c	c	c
Seabird Area 2	<b>c</b>	<b>c</b>	c	د	c	c	c	c	c	c	c						c	c	د	c	c	c	د	c
abird Area	c	c	c	د	c	c	c	c	c	c	د						c	c	c	c	c	c	c	c
d Area	c	c	c	c	c	c	5	c	_	c	c						c	c	c	c	c	c	د	c
abird A	c	c	c	c	c	c	c	c	c	c	c						c	c	c	c	c	c	c	c
abird A	c	c	c	c	c	c	c	c	c	c	c						c	c	c	c	c	c	c	c
haling	c	c	*	*	*	*	26	93	c	27	c						c	<b>-</b>	c	c	c	c	c	c
hal	c	c	c	c	c	c	c	c	<b>c</b>	<b>c</b>	c						c	c	¢	c	*	c	c	*
ea S	c	c	50	c	c	د	c	c	c	c	c						c	c	c	c	c	c	c	_
e a	c	c	26	c	c	c	c	c	c	c	c						c	۵	c	c	c	c	c	c
e	c	c	c	c	26	د	7.0	c	c	7	c						c	c	c	c	c	c	c	c
ea Seyment	c	c	<b>c</b>	<b>c</b>	c	c	* *	c	c	63	<b>c</b>						c	=	c	c	c	c	c	c
Seyment	c	c	c	c	c	c	_	~	c	c	ے.	۔ د	c	c	ر د	c	c	c	c	c	c	c	<b>-</b>	c
Sea Seyment, 6	c	c	c	C	c	c	c	c	c	c	c						c	c	c	c	c	c	c	c
ea Segment	<b>c</b>	c	c	c	c	c	د	c	c	<b>c</b>	c					•	c	C	c	25	c	<b>c</b>	c	c
ea Segment	c	c	c	c	c	c	c	د	c	<b>c</b>	c						C	c	c	•	c	c	22	c
ea Seyment 9	c	c	c	c	ε	<b>c</b>	c	c	c	<b>c</b>	c						c	ε	c	c	c	c	c	c
ea Segment 1	c	c	c	c	c	c	ے	c	c	c	c						c	c	c	c	c	c	c	c
ea Segment 1	c	<b>c</b>	<b>c</b>	c	c	c	<u> </u>	<b>c</b>	c	c	c						c	c	c	c	c	c	c	c
ea Segment 1	c	<b>c</b>	c	<b>C</b>	c	<b>c</b>	د	c	· c	c	c						c	c	c	c	c	c	c	c
ea Se	c	c	c	c	c	c	c	c	c	c	c						c	c	c	c	c	c	c	c
ea Seyment 1	c	c	c	<b>c</b>	c	c	c	c	<b>~</b>	<b>-</b>	c						<b>c</b>	ε	c	c	c	<b>c</b>	c	c

at a particular location will contact a certain taryet within 30 days. Oilspill trajectories initiated on April 1. Table 9. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting

	Iaryet								Hypothetical Spill Location
				P 2 6	P27	P 28	P 2 9	P 30	
	Land			c	<b>c</b>	<b>c</b>	c	۵	
	Cowhead	Feed	eeding A	c	c	c	c	c	
	Bowhead	Feedi	ling B	c	c	c	**	c	
		Conc.	ď	c	c	c	c	c	
	Beluga C	Conc.	8	c	c	c	c	c	
	Major wh	ale	Migr. A	c	c	c	c	c	
		Whale	Migr. B	c	c	*	c	c	
	Seabird	Area	-	c	c	c	_	c	
	Seabird	Area	2	c	c	c	c	c	
	Seabird	Area	2	c	c	c	c	c	
	Seabird	Area	<b>,</b>	c	<b>c</b>	د	c	د	
	Seabird	Area	~	c	c	c	c	c	
	Seabird	Area	9	c	c	c	*	c	
	Whaling	(Wainw	nwright)	c	c	c	c	c	
	Whating	(Kaktov	tovik)	*	*	c	~	25	
	Sea Seyment	ent	-	c	c	c	c	c	4
	Sea Seyment	ent	~	c	c	c	c	c	
		egment	~	c	c	c	c	c	
Л		ent	7	<b>c</b>	c	c	c	c	
2		ent	2	<b>c</b>	c	c	c	c	•
	e a	e ymen t	9	<b>c</b>	c	c	c	c	
	Sea Seymen	ent	7	c	c	c	c	c	
	S	egment	æ	<b>c</b>	c	c	c	c	
	ea S	egment	6	c	c	c	c	c	
	ea Se	gment	10	c	30	c	5	c	
	Sea Segm	gment	=	c	c	<b>c</b>	c	73	
	ea Se	gment	12	c	c	c	c	c	
	Sea Seym	yment	13	c	c	٦	c	c	
	Sea Segm	gment	14	c	c	c	_	c	

Note: \*\* = Greater than 99.5 percent; n = less than 0.5 percent. \*\*\* MMS DRAFT \*\*\*

Table 10. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target during the winter season. Oilspill trajectory simulations initiated on April 1.

Target							Hyp	othet	ica	l Spil		ə	ion											
	<u> </u>	P 2	P 3	ρ¢	P 5	ь6		9 8		P10	11	P12 p	P13 P1	14 P1	15 P16	P 1	7 P18	P19	P20	P 2.1	P 2.2	P 23	P 2 4	P 2 5
Land	<	c	c	c	c	c	c	c	c	c	c						c	c	2	c	c	c	c	c
Bowhead Feeding A	c	=	c	c	c	c	c	c	*	c	c	c	c	c	ر د	c	c	c	c	c	c	c	c	c
Bowhead Feeding B	c	c	c	c	c	c	c	c	c	¢	c						c	Ε	c	c	c	c	c	c
Beluga Conc. A	c	c	c	c	۲	c	c	c	c	c	c						c	=	c	٦	c	c	c	c
Conc	c	_	c	c	c	c	c	c	c	c	c						C	د	C	c	c	c	c	c
Major whale Miyr. A	*	_	*		c	*	83	*	c	22	د						c	=	ב	c	c	c	c	c
thate Migr.	c	c	c		c	2	4	~	_	*	c				•		c	•	c	80	c	*	0 %	c
eabird Area	c	c	c		c	<b>c</b>	c	c	c	Ç	د						c	C	5	c	c	c	c	c
Seabiro Area 2	C	c	c		c	c	c	c	c	c	۲						c	c	c	c	c	c	c	c
eabird Are	c	_	c		c	c	۲.	c	c	c	c						c	ε	C	c	c	c	c	ے
ø	=	c	c		c	c	c	c	c	<b>c</b>	c						c	٤	C	c	c	c	c	c
eabird Are	c	c	c		c	c	2	c	c	c	c		•				c	=	٥	c	c	c	c	c
eabird	c	c	c		2	<b>c</b>	c	c	c	c	c						c	c	c	c	c	c	c	c
haling (Wainwri	c	c	*		•	*	*	*	c	93	c						c	_	c	~	c	c	c	c
Whaling (Kaktovik)	c	c	c		c	c	c	c	c	2	c						c	c	c	د	•	c	c	*
Seyment	13	<b>C</b>	8 7		ċ	c	c	<b>c</b>	c	c	c						c	c	c	c	c	c	c	c
ea Seyment	c	c	4		c	c	<b>c</b>	c	c	c	c						c	c	c	c	c	c	c	c
e a	c	c	c		26	c	26	29	_	77	c						د	ε	c	~	c	c	c	c
Sea Seyment	c	c	c		<b>c</b>	c	*	63	c	83	c						c	c	c	c	c	c	c	c
e a	<b>c</b>	۲	c		٤	c	c	m	c	c	c			•			C	C	c	10	c	c	c	c
e 9	c	c	c		c	c	c	c	c	c	c						c	<b>c</b>	c	37	c	c	c	c
ea Seyment	c	C	c		c	c	c	c	<b>c</b>	c	c						c	c	c	26	c	د	23	c
Sea Segment 8	c	_	c		c	c	c	c	c	c	c						c	=	c	•	c	c	93	c
sea	c	c	c		c	c	c	c	c	c	د						ε	¢	c	c	c	c	c	c
Sea Seyment 10	c	<b>c</b>	2		c	c	c	c	<b>c</b>	c	c						c	_	c	c	2	c	c	c
6 9	c	<b>c</b>	c		<b>c</b>	c	c	c	c	c	E						<b>c</b>	c	c	c	c	c	5	c
e o	c	c	c		c	<b>c</b>	c	c	c	c	c						c	c	c	c	د	c	c	c
a.	c	c	د		c	c	۶	c	c	<b>c</b>	c						c	<b>c</b>	c	c	c	c	c	c
Sea Seyment 14	<b>-</b>	c	c		5	c	c	c	c	<b>c</b>	c						c	C	c	<b>c</b>	<b>c</b>	c	c	c

Note: \*\* = Greater than 99.5 percent; n = less than 0.5 percent. \*\*\* MMS DRAFT \*\*\*

at a particular location will contact a certain target during the winter season. Oilspill trajectories initiated on April 1. Table 13. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting

j

hetical Spill Location

	P 26	P 2 7	P 28	P29	P30	2004
c	c	c	c	30	c	
head Feed	c	c	c	c	c	
whead Feeding	c	c	c	*		
luga conc. A	c	c	c	c	<i>-</i>	
luga conc.	c	c	c	c	c	
jor Whale Migr.	c	c	c	c	ء	
jor what	c	9	*	c	33	
ird Area 1	<b>c</b>	5	c	c	_	
abird Area	c	c	c	c	c	
abird Area	c	c	c	c	c	
abird Area	c	c	c	c	c	
abird Area	c	c	c	20	د	
abird Area	c	c	c	*	c	,
aling (Wainwrig	c	c	c	c	c	
aling (Kaktov	*	*	c	93	20	
a Seyment	c	c	c	c	c	
a Seyment	c	c	c	c	c	
a Segment	c	c	c	c	c	
a Segment	c	c	c	c	c	
a Seyment	c	c	c	c	c	
a Segment	c	c	c	c	c	
a Seyment	c	c	c	c	c	
a Seyment	c		c	c	c	
a Segment	c	20	c	c	20	
gment 1	c		c	M	80	
a Seyment	c	c	c	c	*	
a Segment 1	c	c	c	c	c	
a Seyment 1	c	_	c	c	c	
•						

Note: \*\* = Greater than 99.5 percent; n = less than 0.5 percent. \*\*\* MMS DRAFT \*\*\*

Table 11, \_\_ Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 15 days. Convination of all three trajectory sets. Spills lawnched during the sinter season.

Target	7	5	P 3	<b>5</b> d	P 5	PS	4y00 p	thet.	icat p9	Spil P10	11 LK	ocati P12 P	ion P13 F1	14 P1	15 P1	6 P17	x 1 a	P19	bžd	P21	P22	P 2 3 1	P 24 P	P.2.5
; ;					1	,			,															
Land	c	_	c	c	_	c			c	c							_	c	c	c	_	c		c
Bowhead Feeding A	c	<b>c</b>	<b>c</b>	c	c	c			•	c		_					c	c	c	c	<b>c</b>	<b>c</b>		c
Bowhead Feeding B	c	c	c	c	c	ج.			c	c							c	c	c	c	c	c		ε
Beluga Conc. A	c	c	c	c	c	c			c	c							ה	c	c	c	c	c		c
Reluga Conc. B	c	<b>c</b>	c	c	c	c			c	c							c	c	۶	c	c	c		<b>c</b>
Major Whate digr. A	*	c	*	1.9	c	*			_	٥							c	c	c	c	c	c		c
or Whale	c	c	c	c	c	c			c	*	-				*		c	*	c	c	c	:		c
Seabird Area 1	<b>c</b>	c	c	c	c	c			c	c							c	c	c	c	c	c		_
e	c	c	c	c	c	c			c	c							c	2	c	c	c	<b>c</b>		c
Seabird Area 3	c	c	c	c	c	c			c	c							c	c	=	c	c	c		c
Seabird Area 4	c	c	c	c	c	c			c	c							c	c	<b>c</b>	c	c	<b>c</b>		•
Seabird Area 5	c	c	c	c	c	c			c	c							c	c	c	c	c	<b>c</b>		c
Seabird Area 5	c	c	c	c	c	c			c	c							c	c	c	c	c	c		c
Whaling (Wainwright)	-	c	*	*	*	*			20	~							c	c	c	c	c	c		<b>c</b>
Whaling (Kaktovik)	c	c	c	c	c	c			c	c							c	c	c	c	•	c	•	*
Sea Segment 1	c	c	~	-	c	c			c	c							c	c	c	c	c	c		<b>c</b>
Sea Segment 2	c	c	83	•	c	c			c	c							c	c	c	c	c	c		_
Sea Segment 3	<b>c</b>	c	c	c	69	c			c	c							c	۲	c	c	c	c		<b>c</b>
Sea Segment 4	c	c	c	c	c	c			c	13							c	c	c	c	c	c		<b>c</b>
	c	c	c	c	c	c			c	c					٠		c	c	c	c	c	c		c
Sea Seyment 5	c	c	c	c	c	c			c	c							c	c	c	c	c	c		c
Sea Seyment 7	c	c	c	c	c	c			c	c						-	c	c	c	14	c	c		_
Seyment	c	c	c	c	c	c			c	c							c	c	c	•	c	c		c
Sea Segment 9	c	c	c	c	c	c			c	c							c	c	ŗ	c	<b>c</b>	c		_
Sea Segment 10	c	c	c	c	c	c			c	c		•					c	c	c	c	c	c		_
Segment 1	c	c	c	c	c	c			c	c							c	c	ε	c	c	c		c
Seyment 1	c	c	c	c	c	c			c	c							c	c	c	c	c	c		_
e)	c	c	c	c	c	c	c	c	c	c	c	c	- -	c	_	c	c	c	c	_	c	c	c	_
Sea Segaent 14	c	<b>c</b>	c	c	c	c			c	c							c	_	c	<b>c</b>	c	c		<b>c</b>

Note: \*\* = Greater than 99.5 percent; n = less than 0.5 percent. \*\* MMS DRAFT \*\*

-- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 15 days. Combination of all three trajectory sets. lable 11. (Continued)

Spills launched during the winter season.

Hypothetical Spill Location (dainwright) Whaling (Kaktovik) Major whale Migr. Major Whale Higr. Bowhead feeding A Bowhead feeding 9 Beluja Conc. A deluya Conc. 3 Seabird Area 6 Segment 10 Segment 12 Segment 13 Segment 14 Seabird Area 2 Seabird Area 5 Seabird Area 1 Seabird Area Seabird Area Sea Segment 1 Sea Seyment Sea · Segment Seyment Seyment Seyment Seyment Segment Segment Segment Whating Target Land Sea 46

Note: \*\* = Greater than 99,5 oercent; n = less than 0.5 percent. \*\* MNS DRAFT \*\*

Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 30 days. Combination of all three trajectory sets. Spills launched during the winter season. • Table 12.

larget	P 1	6 2	٨	7 d	9 2	9	Нуро Р7	othet P8	ical P9	Spi P10	11 L	ocati P12 F	ion P13 F	P14 P	P 1 5 P	P16 P1	7 P1	8 P1	9 6	0 07	1 622	P 2 3	7 C d	9
						•				:		,				,					1			
rand	c	c	c	c	c	c	c	c	c	c	c			c	c				c			c	c	_
Bowhead Feeding A	c	c	c	c	c	c	c	c	*	c	19	, ,		_	-				c			c	c	_
Bowhead Feeding B	c	c	c	c	c	c	c	c	c	c	c			c	c				c			c	c	C
luga Conc.	c	c	c	c	c	c	c	c	c	c	c			c	c				c			c	c	_
letuga Conc. B	c	c	c	c	c	_	c	c	c	c	c			c	c				c			c	c	_
Major Whale Migr. A	*	c	*	36	c	*	80	96	2	36	6			2	c				c			c	c	_
jor whale	c	c	c	c	c	c	*	4	c	*	2	*	c	2	*	*	_	*	c	<b>c</b>	c	*	c	-
Seabird Area 1	c	c	c	c	c	c	c	c	c	c	c			c	c				c			c	c	•
e	c	c	c	c	c	c	c	c	9	c	c			c	c				c			c	c	_
e	c	c	c	c	c	c	c	c	c	c	c			c	c				14			c	c	_
e	c	c	c	c	c	c	c	c	c	c	c			c	c				c			c	c	Ĕ
e	c	c	c	c	c	c	c	c	c	c	c			c	c				c			c	c	_
·	c	c	c	c	c	c	c	c	c	c	c			c	c				c			c	c	_
·œ	-	c	*	*	*	*	6	62	21	27	10			_	_				c			c	c	_
aling	c	c	c	c	c	c	c	c	c	c	c			c	c				c		•	c	c	*
ea Segment 1	c	c	19	-	c	c	c	c	c	c	c			c	c				c			c	c	_
ea Segment ?	3	c	89	6	c	c	c	c	c	c	c			c	c				c			c	c	_
ea Segment 3	c	c	c	c	06	c	24	-	c	0	c			c	c				c			c	c	Ī
Sea Segment 4	c	c	c	c	c	c	*	-	-	36	c			c	c				c			c	c	_
a Seyment	c	c	c	c	c	c	c	1	-	c	21			~	c				c			c	c	_
ea Segment 6	c	c	c	c	c	c	c	c	c	c	-		-	5:	c				c			c	c	_
ea Segment /	c	c	c	c	c	c	c	c	c	c	c			~	c	-			c	-		c	-	
ea Seyment 8	c	c	c	c	c	c	c	c	c	c	c			c	_				c			c	92	
iea Segment 9	c	c	c	c	c	c	c	c	c	c	c			c	c				c			c	c	_
ea Segment 10	c	c	c	c	c	c	c	c	c	c	c			c	c				c			c	c	_
ea Segment 11	c	c	c	c	c	c	c	c	c	c	c			c	c				c			c	c	•
ea Segment 12	c	c	c	c	c	c	c	c	c	c	c			c	c				c			c	c	٠
Se	c	c	c	c	c	c	c	c	c	c	c			c	c				c			c	c	
As Compat 1/	6	•	(	•	•	•	•	•	(	(	•			(	1				•			•	6	•

Note: \*\* = Greater than 99.5 percent; n = less than 0.5 percent. \*\* MMS DRAFT \*\*

Table 12. (Continued) -- Probabilitins (expressed as percent chance) that an oilsuill starting at a particular location will contact a certain target within 30 days. Combination of all three trajectory sets. Spills launched during the winter season.

: | •

Target						Hypothetical Spill Location
	P 26	17.7	P 2 8	b 50	D\$d	
Land	c	<b>c</b>	c	c	c	
Bowhead Feeding A	ε	c	c	c	c	
Bowhead Freding B	c	c	c	* *	_	•
Beluga Conc. 1	c	c	c	c	c	
Betuga Conc. B	c	c	c	c	c	
whate	с	c	c	c	c	
Major Whale Migr. B	=	c	*	c	c	
Seubird Area 1	c	c	c	c	c	
Seabird Area 2	c	c	c	c	c	
Seabird Area 3	c	c	c	c	c	
Seabird Area 4	c	c	<b>c</b>	c	c	
Seabird Area 5	9	c	c	c	c	
Seabird Area 6	c	c	c	*	c	
Whating (Wainwright)	c	c	c	c	c	
Whating (Kaktovik)	*	*	c	7.	24	
Sea Segment 1	c	c	<b>c</b>	c	c	
	c	c	c	c	c	
Sea Seyment 3	c	c	c	c	c	
	c	c	c'	c	c	
Sea Segment S	c	c	c	c	c	
	c	c	c	c	c	
Sea Segment 7	c	c	c	c	c	
	-	c	c	c	c	
Sea Segment 9	c	-	c	c	c	
Sea Segment 10	-	56	c	c	~	
Sea Segment 11	c	₩:	c	c	۲2	
Sea Segment 12	c	c	c	c	٧	
Sea Segment 13	c	c	c	c	<b>c</b>	
Sea Segment 14	c	c	c	c	c	

Note: \*\* = Greater than 99.5 percent; n = less than 0.5 percent, \*\* MMS DRAFT \*\*

Table 13. -- Probabilities (expressed as percent chance) that an oilspill starting tables sasson. At a particular location will contact a certain target during the winter season. Combination of all three trajectory sets. Spills launched during the winter season.

							00 /	thet	icat	٠,	11 10	catio	c											
	٦	P 2	P \$	<b>b</b> 4	P 5	PS	7 d	œ	0	P19 F	P1 1 P1	Α.	3 P1	4 P1	S P16	6 P17	018	61d	020	P 2.1	524	P 2 3 F	d %¿d	25
Land	c	د	c	c	c	-		<u>د</u>	-						c	0	4.6	c	14	4	17			0
Howhead Feeding A	c	c	c	c	c	c		c	•						c	Ş	-	¢	4	,-	c			c
Bowhead Feeding B	c	c	c	c	c	c									c	c	c	c	c	<b>c</b>	c			c
Beluga Conc. 4	c	c	c	c	c	c									c	c	c	۲	c	c	c			c
Beluga Conc. B	c	c	c	c	c	c									c	c	c	۲	c	c	c			c
Major Whale Migr. A	*	c	*	*	c	*									9	54	-	c	ç	12	-			c
Major Whale Migr. B	E	c	c	c	c	c	* *	16	د	*	30	* *	3.9	7	*	8.6	15	*	s	36	7	:	6.0	ş
ů	<b>c</b>	c	c		_	c									c	c	c	c	c	c	c			c
Seabird Area ?	٠.	c	c			<b>c</b>									c	c	c	c	c	c	c			c
Seabird Area 3	c	c	c			c									c	-	/	c	14	c	"			_
Seabird Area 4	c	د	c	c	_	c									۵	c	•	c	c	c	c		_	_
eabird A	c	c	c		_	c									c	c	c	د	5	c	c			c
Seabird Area 6	c	c	c		_	c									c	c	c	۲	c	c	c			<b>c</b>
_	_	c	*		*	*									15	25	1 3	c	7	9	-			
Whaling (Kaktovik)	c	c	c	c	c	c									<b>c</b>	c	c	c	c	c	*		•	
Sea Segment 1	52	c	61	52	c	œ									c	c	c	c	c	c	c			_
Sea Segment ?	=	c	80	8	c	_									<b>c</b>	c	د	c	c	c	5			c
Sea Segment	c	c	c	c	91	4		_							12	1.5	c	c	7	12	-			
O Sea Segment 4	c	c	_	c	c	•									~	23	=	c	7	14	_			c
ea Segment	c	c	c	c	c	c									Ψ.	6.0	~	c	ç	52	-			_
Ü	c	c	c	c	c	c									c	85	12	c	<u>۸</u>	27	~	•		7
Sea Segment 7	د	<b>c</b>	c	c	c	c					•				c	*	7	c	~	85	7	•		٥
Sea Segment 3	c	c	د	c	c	c									c	c	c	c	-	*	~	•	_	0
e a	c	c	c	c	c	c									c	c	ر	د	c	c	c			c
e a	c	c	c	c	c	5									c	c	c	c	c	c	c			c
Sea Segment 11	c	د	د	<b>c</b>	c	c									c	c	2	c	c	c	c			c
Sea Segment 12	c	c	c	<b>c</b>	c	c									c	c	c	c	<b>-</b>	c	c			c
Sea Segment 13	c	c	د	c	c	c									د	c	c	c	c	c	c			c
Sea Segment 14	c	۲	c	E	c	c									c	c	c	c	c	c	c			c

Table 13. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target during the winter season. Combination of all three trajectory sets.

	Target						Hypothetical Spill Location	Spill	Location
	1	97d	P27	P 2 8	P 29	P 3/J			
	Land	-	c	c	95	-			
	Bowhead Feeding A	<b>c</b>	c	c	c	c			
	Bowhead Freding B	c	c	c	*	^			
	Beluga Conc. A	c	c	c	c	c			
	Beluja Conc. B	c	c	c	c	c			
	a le	c	c	c	c	c			
	Major Whale Migr. B	5.0	7.1	•	œ	51			
	Are	c	c	c	c	c			
	Seabird Area 2	c	c	c	c	c			
	Seabird Area 3	c	c	c	c	c			
	Seabird Area 4	c	c	c	c	c			
	Seabird Area 5	16	c	c	5.6	-			
	Seabird Area 5	_	c	c	*	c			
	Whating (Wainwright)	c	_	c	c	c			
	Whaling (Kaktovik)	*	*	c	69	7.1			
	Sea Segment 1	c	c	c	c	c			
	Sea Segment 2	c	c	c	c	c			
	Sea Segment 3	c	c	c	c	c			
	Sea Segment 4	c	-	c	c	-			
j	Sea	-	_	c	c	c			
	Sea	<b>∽</b> :	4	<b>c</b>		-			
	Sea Segment 7	13	0	c	4	7			
	Sea Seyment 8	34	23	c	c	\$			
	Sea Seyment 9	x	53	-	~	5.5			
	Sea Seyment 10	-	29	<b>c</b>	~	92			
		_	ဆ	c	c	85			
	Sea Segment 12	c	_	c	c	11			
		c	c	c	c	c			
	Sea Seigment 14	c	c	c	c	c			

Hole: \*\* is Greater than 99.5 percent; n is less than 0.5 percent. \*\* MNS DRAFT \*\*

Tuble 14. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land or boundary segment within 30 days. Oilspill trajectory simulations initiated on october 15.

	52	c	c
	5 % F	c	c
	3 5 Cc	c	c
	1 2 2 d	c	c
	2.7	ε	c c
	p 2 (-	5	c
	P10	c	c
	P6 P7 P8 P9 P10 P11 P12 P13 P14 P15 P16 P17 P18 P10 P20 P21 P22 P23 P24 P25	c	c
	P1.	c	c
	P16	c	c
	P15		
	P14	c	c
ion	P13	c	c
ocat	P12	c	c c
=======================================	P11	c	c
Sp	P 10	c c	
Hypothetical Spill Location	<b>6 d</b>	c	<b>c</b> .
othe	P 8	c	c
Hyp	P 7	c	c
	P 6	c	c
	P 5	c	c
	P4	c	c c
	ē,	c	c
	P1 P2 P3 P4	~	c
	19	n 3 n	m
Segment		82	
Se		.0	٠.

Notes: \*\* = Greater than 99,5 percent; n = less than 0,5 percent. Rows with all values less than 0,5 percent are not shown, \*\*\*\* MNS DRAFT \*\*\*\*\*

Table 14. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land or boundary sequent within 30 days. Oilspill trajectory simulations initiated on October 15.

Segment

P26 P27 P28 P29 P30

Hypothetical Spill Location

Notes: \*\* = Greater than 99.5 percent; n \* less than 0.5 percent. Rows with all values less than 0.5 percent are not shown. \*\*\*\* MMS DEAFT \*\*\*\*\*

NO CONTACTS TO LAND SEGMENTS

Table 15. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land or boundary segment during the winter season. Oilspill trajectory simulations initiated on October 15.

	P25	c	c	c	c	c	د	c	د	c	c	c	~	7	10	10	~	7	c	c	c	~	<b>c</b>	c	c	c	c	c,	c	c	_
	P24	c	c	c	c	c	c	c	c	د	c	c	~	~	c	c	c	c	c	c	17	10	د	c	c	c	c	c	c	c	c
	P.? 3	c	c	c	د	c	c	c	c	د	c	c	c	¢	c	c	c	_	Ç	13	23	23	~	c	c	c	c	c	c	ح.	c
	P22	c	c	د	c	c	c	c	7	c	c	~	2.2	30	13	c	c	c	c	c	c	د	د	c	۲.	<b>c</b>	<b>c</b>	c	c	د	c
	P 2.1	c	c	c	2	c	c	c	~	~	c	c	10	د	c	c	c	c	<b>c</b>	₩.	17	33	17	c	c	c	~	c	c	د	c
	P 20	c	ε	ء	~	c	c	~	<u>`</u>	~	c	۷	2.2	~	c	=	د	c	c	c	13	17	c	c	c	د	c	c	c	د	E
	<del>د</del> ا	c	<b>c</b>	c	c	د	c	c	c	c	c	c	۵	c	c	c	c	c	<b>~</b>	10	2.0	17	c	~	c	c	c	c	د	د	c
	P18																												c		
	P17																												c		
	P16																												c		•
	P15																												c		
	P 1 4																												c		
ion																													c		
ocat	- 216																												c		
ب	P11																												c		
Spi	0																												c		
ical	<u> </u>								•																				c		
thet																													₩		
Нуро																					٠								c		
	P 6																												M		
	P S T	د	د	د	c	c	c	c	c	c	<b>c</b>				c										<b>-</b>	0	0	m	_	<b>c</b>	c
	<b>5</b>	د	د	c	c	c	c	د	<b>c</b>	c	_															2 د	0	0.	25	~	<b>-</b>
	P.3	c	-د	د	c	c	c	c	c	c	c	c	c	c	c	c	د	c	_	<b>-</b>	<b>-</b>	c	c	c	c	<b>-</b>			53 5		c
	~																				0	0	~						د		
	<u>-</u>	د	c	<b>c</b>	د	c	c	د	ے	c	د	_	_	c	_	c	<b>c</b>	_	_	c		n S		ç	c	c	_	c	٣	_	_
	G.																												~	7	
Seyment		5.0	21	25	2.3	54	25	9.2	2.7	2.8	<b>6</b> 2	32	33	34	35	3.6	37	38	62	30	81	82	83	78	85	88	89	0.6	91	26	93

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Notes: \*\* = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown. \*\*\*\*\* MMS DRAFT \*\*\*\*\*

at a particular location will contact a certain land or houndury segment during the winter season. Oilspill trajectory simulations initialed on October 15. Table 15, (Continued) -- Probabilities (expressed as percent chance) that an oilsuill starting

Location													
Spill													
Hypothetical Spill Location												•	
	P 30	c	<b>c</b>	c	c	~	<b>c</b>	c	<b>c</b>	c	~	د	c
	P29	c	c	c	c	13	n 17 n	₩.	c	د	c	c	c
	P28	c	c	c	c	۲	c	c	M	22	37	17	~
	P27	c	c	c	c	c	c	c	c	7	23	~	c
	P 2 6	M	~		m	c	c	c	c	c	c	c	c
Segment		35	3.7	39	0 7	4.1	77	43	62	3.0	81	82	8 8

Notes: \*\* = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown. \*\*\*\* MMS DRAFT \*\*\*\*\*

Table 16. -- Probabilities (expressed as percent chance) that an oilsoill starting at a particular location will contact a certain land or boundary scoment during the winter season. Oilsoill trajectory simulations initiated on January 1.

The statement of the st

:

	p 2 S	c	c	<b>c</b>	ے	_	c	c	<b>c</b>	_	<b>c</b>	c	7	c	c	<b>c</b>	c	_	c	c	c	c	c	c	<b>c</b>	c	c	c	c
	1 7cd							c					-																
	₩.																												
	2 P2							<b>c</b>																					
	1 P22							د																					
	100 (	_	_	_	_	_	c	_	c	c	د	<b>c</b>	_	_	c	10	c	c	_	c	=	c	ح	_	_	_	c	_	<b>C</b>
	l dd	c	د	c	c	_	c	c	c	د	c	c	_	_	c	c	c	c	_	c	_	c	c	c	c	c	<b>C</b>	c	ے :
	619	c	c	c	_	c	c	c	c	c	c	_	_	^	٦,	4	7	₩.	₩	c	_	c	c	c	c	_	_	c	c
	P18	c	c	<b>c</b>	c	c	c	<b>c</b>	<b>c</b>	c	<b>c</b>	63	c	c	c	c	c	c	c	c	c	c	۶	c	<b>c</b>	_	c	c	c
	P17	c	c	<b>c</b>	۶	<b>c</b>	c	<b>c</b>	<b>c</b>	₩.	c	13	۵	c	c	~	~	c	c	c	ے	c	c	_	c	c	c	c	c
	P16	c	c	c	c	c	<b>c</b>	c	c	c	c	c	c	c	~	۷0	30	<b>~</b>	<b>M</b> .	m	c	c	c	c	c	<b>c</b>	د	<b>c</b>	c
	P15	c	c	<b>c</b>	c	c	c	c	ء	c	26	c	c	c	c	c	c	c	c	c	c	c	c	c	_	۲	c	c	c
	P14	د	c	c	c	c	~	17	~	c	c	c	c	c	c	0	~	~	c	c	c	c	c	c	c	c	ء	c	c
50	7.							_																					
cati	12 P							<b>c</b>																			٠		
1	<del>-</del> ۵																												
Spill	0							c																					
a - s	٩							c																					
t i c	å	c	_	c	c	<b>C</b>	c	c	c	c	c	c	_	c	c	c	c	c	c	c	_	_	<b>E</b>	c	c	_	_	c	c
_	Ç.	~	~	~	c	_	c	c	c	c	c	c	c	c	¢	10	37	30	c	c	₩.	c	^	~	c	<b>-</b>	c	c	c
Hys	7 d	c	c	c	c	_	c	c	c	, <b>c</b>	c	<b>c</b>	c	c	c	<b>~</b> .	25	2.2	<b>c</b>	m	<b>c</b>	c	c	c	c	c	c	c	c
	4	~	c	c	c	<b>c</b>	c	<b>c</b>	c	c	c	c	c	c	c	^	<u>-</u>	20	c	c	c	₩.	23	23	₩,	۳	c	c	<b>c</b>
	P 5	c	c	c	c	c	c	_	c	c	c	c	c	c	c		23		c	~	c	c	~	~	c	c	c	c	c
	<b>5</b> 4	c	c	<b>c</b>	c	c	c	<b>c</b>	_	c	c	c	c	c	c	c	c	~	_	c	c	c	~:	10	30	23	C	~	د
	P 3	c	c	c	<b>c</b>	<b>c</b>	c	c	<b>c</b>	c	c	c	c	c	c	c	c	c	c	c	c	c	~	20	0 7	۵	ء	د	~
	P 2							c																					
	F .							_																					
	a.																								~	7	2		
Segment		20	21	<b>2</b> 2	\$ ¿	5 4	9 2	7.5	8 7	67	3.2	5.3	39	62	80	. 18	۶۶	× 3	84	8.5	86	87	&C &.	89	06	91	26	93	76

\*\*\*\*\* MMS DRAFT \*\*\*\* Notes: \*\* = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

at a particular location will contact a certain land or boundary sequent during the winter season. Oilspill trajectory simulations initiated on January 1. Table 15. (Continued) -- Probabilities (expressed as percent chance) that an oilsoill starting

40 7 n n n n 41 t4 43 n n n n n 17 44 44 n n n 17 17 n 17 n 1	P29 P37 n n n n 17 n
	n n n n 7.5
	0 28
	17 n
	. 08
	c c
	c c
u 2 u u	

Notes: \*\* = Greater than 99.5 bercent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown. \*\*\*\* MMS DRAFT \*\*\*\*\*

Table 17. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land or boundary segment during the winter season. Oilspill trajectory simulations initiated on April 1.

Segment							Hype	the	tical	Spi	<u>ו</u>	ocat	ion										,		
	2	P 2	P3	<b>5</b> d	P 5	P.6	P 2	P7 P8 I	64	P10	P11	P9 P10 P11 P12 P13		P14	P15	P16 I	P17 I	310	p10 p	d O2d	p 2.1 g	P22 F	P23 F	P24 F	P25
78	ء		c		c	c	c	c	c	c	د	c	c	c		c	c							c	c
62	c		c		c	c	c	c	c	c	c	7	c	c		c	c							c	c
3.0			c		c	c	c	c	c	c	c	25	c	د		5.0	c	-						c	c
20	c		c		c	c	13	M	<b>c</b>	43	د	22	c	=		25	c							c	c
82	c		c		53	c	73	22	c	33	c	M	c	c		c	c							c	c
83	c	~	د	c	43	د	~	13	c	7	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
86	c		c		M	c	د	c	c	c	c	د	5	c		c	c							c	c
23	c		c		c	c	<u></u>	c	c	د	c	c	c	c		~	c							c	c
80	c		~		c	c	M	c	c	c	c	c	c	c		c	c							c	c
89	c		23		د	c	c	M	c	c	c	۶	c	c		c	c							c	c
06	<b>~</b>		20	_	c	c	c	c	c	c	c	c	c	c		c	c							c	c
91	20		17		c	c	c	c	c	c	د	c	c	c		c	c							ے	c
26.	27		c		c	c	c	c	c	c	c	c	c	c		<b>-</b>	c	c	c	c	c			c	c

Notes: \*\* = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown, \*\*\*\* MMS DRAFT \*\*\*\*\*

Table 17. (Continued) -- Probabilities (expressed as percent chance) that an oilsoill starting at a particular location will contact a certain land or boundary sequent during the winter season. Oilspill trajectory simulations initialed on April 1.

Notes: \*\* = Greator than 99.5 percent; n = less than 0.5 percent.
Rous with all values less than 0.5 percent are not shown. \*\*\*\*\* MMS DRAFT \*\*\*\*\*

**(** ,

Table 18. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a cortain land or houndary snament within 30 days. Combination of all three trajectory sets.

		S	i ( t s	une )	ched.	100	e ci	3	i c		Spills launched during the winter seasons.	. »		^ <del>-</del>	• •									
Seyment	14	P 2	P.3	P1 P2 P3 P4 P5	ρŞ	9 d	Hybe P7	thet PR	icai	SD i	Hypothetical Spill Ideation P6 p7 p8 p9 p10 p11 m12 p13 p14 p15 p16 p17 p18 p10 p0 p01 p00 p03 p04 p05	catio	3n   3 P1	4 p1	5 P16	5 117	9.	5	ניק	1 1 t	9 ((,	23. 0.	9	25
8 28 28	c	-	c	<b>-</b>	c	c	c	c	c	c		~.c	٠	c	c	c	c	د	ε	c	c	c	۔	c
3.6	-	c	c	c	c	c	c	c	c	c		_	c	c	c	c	c	c	د	c	_	_	<u>-</u>	c
Notes: ** $\approx$ 3 rester than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown, ** MMS DRAFT **	ester ( thatl	than valu	99.5	p p e r	cent than	 	) (e	is th	an ()	. s. p.	eroen Stoka		MMS	PRA	;									

Table 18, (Continued) -- Probabilities (expressed as percent chance) that an pilspill starting at a particular location will contact a certain land or houndary sequent within 39 days. Combination of all three trajectory sets. Spills taunched during the winter season.

Seyment

Hypothetical Spill Location P20 P27 P28 P29 P30

Notes: \*\* = Sreater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 3.5 percent are not shown. \*\* MMS DRAFT \*\*

NO CONTACTS TO LAND SEGMENTS

Table 19. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land or boundary sequent during the winter season. Combination of all three trajectory sets. Spills launched during the winter season.

	P ? S	c	c	c	c	c	c	ح	c	c	c	c	_	-	~	2		-	۲,	c	c	c	c	-	c	c	c	c	c	c	c	c	c	ε	c	c
	9èd	c	c	c	c	c	c	c	c	c	c	c	-		c	c	c	c	c	c	c	c	7	~	٤	c	c	Ξ	c	E	۲	c	c	c	c	c
	P 2 3	c	c	c	c	c	c	c	E	c	=	c	c	<b>=</b>	c	c	<b>c</b>	c	c	c	-	<u>۸</u>	37	~	_	c	c	c	c	c	c	c	c	c	c	c
	659		c							ح															c										c	c
	P 2 1	c	c	c	c	c	٤	٤	~	-	c	د	^	c	c	٥	c	c	c	c	c		œ	~	7	c	c	c	c	c	-	c	c	٤	c	c
	ργη	c	c	c	-	c	c	_	~	-	٤	-	ç	_	ε	c	c	c	c	c	c	c	₩,	•	c	٤	c	c	c	c	c	د	c	c	E	c
	910	ç	c	c	c	c	c	د	ε	c	٤	c	c	٤	c	c	c	c	c	-	ر د ر	Ç.	77	α.	-	^	c	٤	=	c	c	c	c	c	c	د
	r 1 2																																	c		
	P17	-	c	c	۲	c	c	_	c	c	-	٥	ç	c	c	c	c	c	c	c	c	c	2	٥	9	٥	د	c	د	_	-	c	c	c	E	c
	14	c	c	c	c	c	c	c	۲	c	c	c	c	c	c	c	c	c	د	c	-	11	77	25	-	-	~	c	_	c	د	c	c	<b>c</b>	c	c
	P15	-	_		_	-	c	~	-	_	-	4.1	c	c	c	c	c	c	c	'n	c	c	~	7	7	<b>c</b>	c	c	د	-	c	c	c	c	c	c
	p14	_	_	-	c	د	c	-	^	_	c	c	c	د	c	c	c	c	Ç	c	٦	c	12	13	ç		<b></b>	c	c	c	۸.	c	c	c	c	c
ion	~	-	<b>,</b>	7	2	-	-	~	c	c	c	c	c	c	ç	c	c	c	c	c	c	c	c	4	7	c	c	c	۲	-	c	c	c	c	c	c
0 C 3 t	P12	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	œ	3.4	51	ż	c	c	-	c	c	c	c	c	<b>c</b>	c	د	c
	F11	-	د	~	_	_		c	c	¢															2					<b>~</b>	~	_	<b>-</b>	c	c	c
Spi	P 10	c	c	c	5	c	c	c	c	c															-		c	c		-	~	<b>c</b>	c	c		c
cal			~																					Ī		c	c	c	c	_	M	<b>,-</b>	c	c	c	c
het	œ	^	_	-	c	c	c	د	c	c	c	c	c	c	c	c	c	c	c	c	c	c	ç	9	<u> </u>	c	c	<b>-</b>	c	ç	c	M	_	_	c	c
Q	80 20	c	_																				~	_	~	<b>-</b> -			c	5	7	c	c	<b>c</b>	c	c
_	<b>5</b>	_	c	c	5	c	c	c	c	_	c	c	c	c	c	c	ċ	c	c	c	c	c			10 2		c	c	_	-	~	4	<b>~</b> ∶	c	c	c
	5.	c	c	c	c	c	c	c	c	c	c	c	د	c	c	c	c	c	c		c			4	5	c	<b></b>	_	c	7	۲ ،		c	c	c	c
	b 7 d	c	<b>E</b>	c	c	c	د	c	c	<b>c</b>	c	c	c	c	c	c	c	c	c	c	c	<b>c</b>	c	2		c	د	c	c	· -	æc	~	7	~	_	c
	₩	c	c	c	c	c	c	c	c	c	c	c	c	c	<b>c</b>	c	c	c	c	c	c	<b>c</b>	c	c	c	c	c	c	c	7	~	7	~	_	c	_
	P2 P	c	<b>c</b>	c	c	c	c	c	c	c	c	c	د	c	<b>c</b>	c	c	c	c	c	c	<b>c</b>	<b>,</b>	Ņ	m	c	c	c	c	c		<b>7</b> u		_	<b>-</b>	c
	9	c	c	c	c	c	c	•	, _	<b>c</b>	c	c	c	c	c	c	c	c	c	c	c	c		7 u		c	c	c	c	c	~	<del></del>	3	~	c	c
	_								`																							_	7	7		
•												•																								
Segmen	•	20	21	77	23	54	5 2	92	2.2	2.8	62	32	3.3	3.6	35	36	3.7	38	39	7.8	62	80	81	82	83	78	3.5	36	87	88	89	9.0	91	6	93	- 76

\*\* MMS DRAFT \*\* Notes: \*\* # Greater than 99.5 percent; n = (ess than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table 19. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land or boundary scament during the winter season. Combination of all three trajectory sets.

			113	at a	particular location will contact a c
				duri	during the winter season. Combination of
			υ,	p i	is launched during the winter season.
Segment					Hypothetical Spill Location
	P26	P27	P 28	66d	PRU
35	-	c	c	c	c
3.7	-	c	c	c	
39	-	c	c	c	c
0.7	7	c	c	c	c
4.1	9	c	c	~:	-
7.5	c	c	c	13	c
4 3	c	c	c	16	c
5 7	c	c	c	13	c
67	c	c	c	-	. c
62	c	c	ÿ	c	c
80	c	_	-	c	<b>E</b>
8.1	c	S	12	c	-
82	ς,	-	7	c	
88	c	c	-	c	

Notes: \*\* = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown, \*\* MMS DRAFT \*\*

Table 20. -- Propabilities (expressed as percent chance) that an oilsoill starting a particular location (during the summer season) will contact a certain target within 3 days.

Target							2	ot he	i. Ca	Soil	<u>د</u> ب	a t	ç											
, n	P 1	P2	<u>۲</u> .	7 0	ΡS	6	2	a.	6	r 10	p11	o čla	017 P	P14 P1	v	P16 p1	7 P.1	5 P T	ن له ي ر	. P21	P 2 2	P 2 3	b 5 d	P25
Land	c	c	, c	œ	c	c	c	c	36	c	c	-						۲	-	c	0.7	c	c	12
Bowhead Farding A	c	c	c	c	c	د	c	3.5	:	د	7.5		14	c	د	c	c	د	د	c	c	c	c	c
Bowheat freding B	c	c	c	c	c	c	c	c	c	c	c							c		د	c	د	c	c
Beluga Conc. A	c	c	c	c	c	c	c	c	c	c	c							۲		C.	c	٤	c	c
Betuga Conc. B	c	c	c	c	c	c	c	c	c	c	c							د		٤	c	c	c	<b>c</b>
Major Whate Widr. A	*	c	*	94	63	*	7.5	60	c	c	12							=		٤	د	د	c	c
Major Whate digr. B	c	c	c	c	œ	c	:	c	c	•	12				•			*		c	c	:	c	c
Seabird Area 1	c	c	c	ar	c	c	c	c	c	c	c							د		c	c	c	c	ء
Seabird Area 2	c	c	Œ	c	c	o: ~:	c	7	3	c	c							c		c	د	c	<b>c</b>	c
Seabird Area 3	c	c	c	c	c	c	c	c	c	٤	c						-	c		c	c	<b>c</b>	c	c
Seabird Area 4	c	<b>c</b>	د	c	c	c	c	<b>c</b>	c	c	c							2		c	C 7	c	c	c
Seabird Arnu S	c	c	ε	c	c	c	c	<b>c</b>	د	c	c							c		c	c	c	c	د
Seabird Area 6	c	ċ	c	ç	c	c	c	c	c	c	c							c		c	<b>c</b>	c	2	c
Whaling (Wainwright)	20	c	*	<b>*</b>	*	•	99	8	76	c	c							c		c	c	c	<b>c</b>	c
Whaling (Kaktovik)	c	c	c	c	c	c	c	c	c	c	د							c	•	c	*	c	13	*
Sea Segment 1	c	c	c	c	c	c	c	c	c	c	c							د		c	c	c	c	c
ea S	æ	c	80	7	c	c	c	c	c	c	c							c		c	c	c	c	c
e a	c	c	c	c	26	c	c	c	c	c	c							c		c	c	c	c	c
Sea Seyment 4	c	c	c	c	c	c	*	œ	c	c	c							c		<b>c</b>	c	c	c	c
Sea Segment 5	c	c	c	c	c	c	c	œ	c	œ	œ ~							_		<b>c</b>	c	c	c	c
Sea Segment 6	c	c	<b>c</b>	c	c	c	c	c	∞	c	œ				•			ב		c	c	c	c	c
ea Seyment	c	c	c	c	c	c	c	c	c	c	c					•		c		<b>%</b>	c	c	c	c
Sea Segment 8	c	c	c	c	c	c	c	c	c	د	c							c		*	c	c	54	c
Sea Segment 9	c	د	c	۵	۲	c	c	c	c	c	c							c		٤	د	c	c	c
Sea Segment 10	c	c	c	c	د	c	c	c	c	c	c							c		c	د	<b>c</b>	c	c
ea Se	c	c	c	c	c	c	c	c	c	c	c							c		c	c	c	c	c
e a	c	c	c	c	c	c	c	c	c	c	c							<b>C</b>		c	c	c	c	c
Sea Segment 13	c	c	c	c	c	c	c	c	c	c	c							•		c	c	c	<b>c</b>	c
Sea Segment 14	<b>c</b>	c	c	c	c	c	c	c	c	c	c							c		<b>c</b>	c	c	c	c

\*\*\*\* MMS DRAFT \*\*\*\* Note: \*\* = Greater than 99.5 percent; n = less than 0.5 percent.

Table 2), (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location (during the summer season) will contact a certain target within 3 days.

larget							Hypothet	-6-	- -	Snill		o i 1											
	P 2 6	P27	P 2 8	P79	(- } d	P 2	7.5	C_	d 72	35 P3	36 P3	7 038	D 30	P 4 I)	P41	670	5 % d	- '' '' '	P45 P4	5d 59d	70 /	8 P49	n 29 0
Land	c	c	c	3,	c	ç	c					c	c	c	c	د	۲				-		c
Bowhead feeding A	c	c	c	c	c	c	c					c	c	c	c	=	c				16		c
Bowhead Feeding 8	c	c	c	:	7	c	c	c	c	c	c	c	د	c	c	=	c	c	r	c		c	c
Beluga Conc. A	c	c	c	c	c	c	c					c	c	c	c	د	۲						c
Beluga Conc. 3	c	c	c	c	c	c	c					د	c	c	c	c	c						c
Major Whale Migr. A	c	c	۵	c	c	c	c					c	a	c	c	c	c				•		<b>c</b>
hale Hiar.	c	c	•	c	c	c	c					c	c	c	•	*	•			-			*
Seabird Area 1	c	c	c	c	c	c	c					c	c	c	c	c	۲						c
Seabird Area 2	c	c	c	c	c	c	c					c	c	c	c	c	ŗ				•		c
Seabird Area 3	c	c	c	c	c	c	c					c	c	c	c	c	c						c
Seabird Area 4	c	c	c	c	c	c	c					c	c	c	c	c	c						c
Seabird Area 5	36	c	c	12	c	c	c					c	c	c	c	c	ŗ						c
Seabird Area 5	c	c	c	•	c	c	c					c	c	c	د	c	c						c
Whating (wainwright)	c	c	c	c	c	c	c					c	c	c	c	c	c				-		c
Uhaling (Kaktovik)	*	*	c	8.4	72	c	c					c	c	c	د	c	c						c
Sea Seyment 1	c	c	c	c	c	c	c					:	7	c	c	c	c	۶			c		c
Sea Seymint 2	c	c	c	c	c	C	c					c	c	c	c	د	c						c
Sea Segment 3	c	=	c	c	c	c	c					c	c	c	c	c	۲						c
	c	c	c	c	c	c	c					c	c	c	c	c	c						c
Sea Seguent 5	c	c	c	c	c	c	c					c	c	c	c	<u>د</u>	c						c
	c	c	c	c	c	c	c					c	c	<b>c</b>	c	د	c						c
Seyment	c	۲	c	c	c	c	c					c	c	c	c	c	<b>-</b>						c
Seyment	c	_	c	c	c	c	c					c	c	c	c	c	c						c
Sea Segment 3	c	c	c	c	c	c	c					c	c	<b>c</b>	c	c	c	•					c
Sea Segment 10	c	12	c	c	c	c	c					c	c	c	c	c	c						2
Sea Segment 11	c	c	c	c	4.0	c	c					c	c	c	c	c	c						c
	c	ح	c <sub>,</sub>	c	c	د	c					c	c	c	c	c	c						c
Se	c	c	c	c	c	c	c					c	c	c	د	د	c						c
	c	c	c	c	c	c	÷					c	c	c	c	c	c						c

\*\*\*\* MMS DPAFT \*\*\*\* Note: \*\* = Greater than 99,5 percent; n = less than 0.5 percent.

Table 21, (Continue)) -- Probabilities (expressed as percent chance) that an oilspill starting and acceptance at a particular location (during the summer season) will contact a cortain target within 3 days.

	P51	P52	P 5 3	75d	550	PS6	P 5.7	200	P59	P60	P57 P58 P50 P60
Land	c	c	c	c	c	c	c	c	c	c	
Bowhead Feeding A	c	c	c	c	c	c	c	c	c	c	
Bowhead Feeding B	c	c	c	c	c	_	c	c	c	c	
e	c	c	c	c	c	c	c	۲	c	c	
Beluga Conc. 3	c	c	c	c	c	c	c	c	c	c	
Major Whale Wigr. A	c	c	c	د	c	c	c	c	c	c	
Major Whale Migr. A	*	:	د	c	c	c	c	*	¢	c	
d Arcs	c	c	c	c	c	c	c	c	c	c	
Seabird Area ?	c	c	c	c	c	c	c	c	c	c	
	c	c	c	c	c	<b>c</b>	c	c	c	c	
Seabird Area 4	c	c	c	c	c	c	c	c	c	c	
Seabird Area 5	c	c	c	c	c	c	c	c	c	c	
Seabird Area 6	c	c	c	c	c	c	c	c	c	<b>c</b>	
Whating (Wainwright)	c	c	c	c	c	c	c	c	c	<b>c</b>	
	c	c	<b>c</b>	c	F	c	c	c	c	c	
6 9	c	c	c	c	c	c	c	c	c	œ	
6 9	c	c	د	c	c	c	c	c	c	c	
:D	c	c	c	c	c	c	c	c	c	c	
Sea	c	12	c	c	c	c	c	c	<b>c</b>	c	
Sea Segment 5	c	c	c	c	c	c	c	c	c	c	
Sea Segment 5	c	c	c	c	c	c	c	c	c	c	
e e	c	c	c	c	c	c	c	c	c	c	
Sea Segment 8	c	c	c	c	c	c	c	c	c	c	
Sea Segment 9	_	c	c	c	c	د	c	c	c	. د	
Sea Seyment 10	c	c	c	c	c	c	28	٤	c	c	
Sea Segment 11	c	c	c	c	c	c	c	c	c	c	
Sea Segment 12	c	c	c	ŗ	c	c	c	c	c	c	
Sea Seyment 13	c	c	c	c	c	c	c	c	c	c	
000	•	,									

\*\*\*\* MMS DPAFT \*\*\*\* Note: \*\* = Greater than 99.5 percent; n = less than 0.5 percent. The state of the s

Table 21, -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location (during the summer serson) will contact a certain target within 10 days.

Tarqet							= × =	_	J.	Sot	וורס	a T												
	ā.	<b>G</b>	P.3	<b>7</b> d	٥	å V	24	œ. Q	60	010	р11 р	P12 P1	1 4 p 1	4 p1	5 P16	4 p17	. <b>1</b> 3	, p 1 9	P 2 D	P21	РЭЭ	<b>₽</b> 2 d	b S d	P 2 5
Land	c	c	c	33	c	c	c							•		7	3.5	۲	25	c	oc oc	c	c	49
Bowhead Fending A	c	c	c	c	c	c	c	7 7	:	c	7.6	- c	16 12	۵	ء	7	٠,	c	c	c	c	c	c	c
Bowhead Feeding B	c	c	c	<b>c</b>	c	c	c									c	r	c	c	c	c	c	c	5
Beluga Conc. A	c	c	c	c	c	c	c									c	c	c	c	٥	c	c	c	۲
Beluya Conc. 3	c	c	<b>c</b>	c	c	c	c									c	c	۲	c	2	c	c	c	c
whate v	* *	c	*	30	15	*	<b>~</b>									c	•	c	c	c	c	c	c	¢
Major Whale Migr. B	c	c	c	c	œ	c	÷								-	ÜŻ	c	:	c	12	5	:	c	c
Area	c	Ċ	c	αç	c	c	c									c	c	כ	c	c	c	٢	c	۵
Seabird Area ?	c	c	œ	c	c	<b>6</b>	c									c	c	۲	c	c	c	c	c	c
Seabird Area 3	c	c	c	c	c	c	c									c	8.7	c	د	c	c	c	c	c
Seabird Area 4	c	c	c	c	c	c	c									c	۲	۲	1,	c	80	c	œ	c
Seabird Area 5	c	c	c	c	c	c	c									c	τ	c	c	c	c	c	c	7
Seabird Area 6	c	c	c	c	c	c	c									c	٦	_	c	c	2	٥	c	c
Whaling (Wainwright)	16	c	*	*	*	*	80									c	c	٢	c	c	c	c	c	c
Whaling (Kaktovik)	c	c	c	c	c	c	c									c	1.2	c	1,	7	*	5	5.2	*
Sea Segment 1	35	c	16	c	۲	c	c									c	c	c	c	c	c	c	c	c
Seyment	12	c	6	C 2	c	28	c									c	c	د	c	c	c	c	c	c
Segment	c	c	c	c	œ	c	<b>6</b> 7									c	c	c	c	c	c	د	c	۲
	c	c	<b>c</b>	c	or	c	*									c	c	c	c	<b>c</b>	c	c	c	۲
	c	c	c	c	c	c	c									œ	c	c	c	c	c	c	c	c
	c	c	c	c	c	c	c									25	7	۲	c	α	c	c	c	۲
a Segment	c	c	c	c	c	c	c									*	c	c	c	79	c	c	αc	c
e a	c	c	c	c	c	c	c				•					12	7	c	c	:	c	c	55	c
Sea Segment 9	c	c	<b>c</b>	c	c	c	c									۲	c	כ	<u>ر</u>	c	c	c	<b>o</b> c	c
Sea Segment 10	c	c	c	c	c	۲	c									c	c	c	c	c	c	د	c	c
ea Segment	c	<b>c</b>	c	c	c	c	c									<b>c</b>	c	c	c	c	c	c	c	c
ea Seyment 1	c	c	c	c	c	c	c									c	c	c	c	c	c	c	c	c
Sea Segment 13	c	c	c	c	c	c	c									c	c	c	c	c	c	c	c	c
Sea Segment 14	c	c	c	c	c	c	c									c	<b>-</b>	c	c	c	c	c	c	c

\*\*\*\*\* MYS DRAFT \*\*\*\*

Note: \*\* = Greater than 99.5 sercent; n = less than 0.5 percent.

Table 21. (Continued) -- Probabilities (expressed as percent chance) that an gilspill starting

Feeding A	P26 P?	29 5	8 6	29 P3'	59 P3	1 1 X	pothe 2 p33	tical P34	Soi	11 L	0C4ti P37 p	2 2 2 2 9 9	30 pt	ነበ P4	1 P.6	, 9 d 2	770 2	; p4.5	, p4.6	P47	8 7 d	674	P50
Feeding A	52 n		œ	<b>.</b>			. 9	c	د	c							c	c	c	c	ας •3	8 7	c
							c	c	c	c							c	c	c	c	20	26	. c
8 64	80		*	76 1		c	12	c	c	c	c	c	c	د	c	c	۲	σ	c	c	c	c	c
Conc. A						c	c	c	c	c							ε	c	c	c	c	c	c
, Conc. A						c	c	c	c	c							٦	c	c	c	c	c	c
Ihale Migr. A	c					c	c	c	c	c		-					۲	c	c	c	0.7	œ	c
Whale Migr. B		•	c		c	c	c	c	c	c				*		•	÷	ζ,	1.6	84	c	7	•
eabird Area 1						c	c	c	<b>c</b>	c							c	c	۲	<b>c</b>	c	c	د
eabird Area ?	c	c				c	c	د	c	c							Ξ	c	c	c	22	12	c
d Area 3						c	c	c	c	c							c	ר	ב	c	c	c	c
eabird Area 4						c	c	c	۲	c							د	¢	c	c	د	c	c
eabird Area S			-			c	<b>د</b>	c	c	c							c	۲	c	c	c	c	c
Area 6						c	c	c	c	c							c	c	٤	c	c	c	c
						E	c	c	c	c							د	c	c	c	:	80	c
(Kaktovik)			5.5	-		c	7	c	c	c							c	c	c	c	c	c	c
ea Segment 1						c	<b>c</b>	c	c	c	*	~					c	C	د	c	c	c	د
gment ?						c	c	د	c	c							د	c	c	c	16	د	د
ea Seyment 3					۔	c	c	c	c	c							c	c	c	c	c	c	د
ea Seyment 4						c	c	c	c	c							c	c	۲	c	œ	c	c
ea Segment 5						c	c	c	c	c					-		7	c	c	c	c	12	د
ea Segment 5						c	c	c	c	c							7	c	c	c	c	c	د
ea Seyment 7						c	c	c	c	c							c	c	c	c	c	c	c
e a						c	c	5	c	Ë							د	c	د	c	c	c	د
ea Seyment 9	œ c					c	c	c	c	c							c	99	α· •	د	د	c	د
ea Segment 1						c	<b>c</b>	c	c	c							٢	c	<b>5</b> 8	د	c	c	c
a)				-		c	c	c	c	c							c	c	c	c	c	c	د
ea Segment 1					-	c	c	c	c	c							c	c	c	c	c	c	c
a Segment 1	c				c -	12	c	c	c	c							c	c	c	<b>c</b>	c	c	c
ea Se						+	c	c	c	c							c	_	5	c	c	c	c

Table 21. (Continued) -- Probabilities (expressed as percent chance) that an nilsoill starting at a particular location (during the symmer season) will contact a certain target within 10 days.

	larget							Hybo	thet	ical	Spill	Location
		P51	P52	P53	5 d	P S S	<b>PS6</b>	354 724 S	950	P 5 9	P59 P61	
	Land	c	c	c	c	c	c	c	c	c	c	
	Bowhead Feeding A	c	c	c	c	c	c	c	c	c	c	
	Bowhead Feeding B	<b>c</b>	c	c	c	c	c	c	c	c	c	
	Beluga Conc. A	c	c	c	c	c	c	c	c	c	c	
		c	c	c	c	c	c	c	c	c	c	
	-	c	20	c	c	c	c	c	c	c	c	
	Major Whale Wigr. B	*	*	<b>c</b>	c	c	c	12	:	c	<b>c</b>	
	Seabird Area 1	c	c	c	c	c	c	c	c	c	c	
	eabird Ar	c	c	c	c	c	c	c	c	c	c	
	abird A	c	c	c	c	c	_	c	c	c	c	
	Seabird Area 4	c	c	c	c	c	<b>c</b>	c	c	c	c	
		c	c	c	c	c	c	c	c	د	c	
	•	c	c	c	c	c	c	c	c	<b>c</b>	c	
	ating	c	32	c	c	c	c	c	c	c	c	
	Whaling (Kaktovik)	<b>c</b>	c	c	c	c	c	c	c	c	c	
	Sea Segment 1	c	c	c	c	c	c	c	ċ	5	54	
	ea Segment	c	٤	c	c	c	c	c	c	c	c	
	ea Se	<b>c</b>	c	c	c	c	c	c	c	c	c	
	ea Segment	c	40	c	c	c	c	c	c	5	c	
J	ea Se	c	c	c	c	c	c	c	c	c	c	
į	Sea Segment 6	c	c	c	c	c	c	c	c	c	c	
	ea Segment	c	c	c	c	c	٤	c	c	۵	c	
	ea Se	c	c	۵	c	c	c	c	c	<b>c</b>	c	
	ea Segment	c	c	c	c	c	c	54	c	c	c	
	Sea Segment 10	c	c	c	c	c	c	61)	c	c	د	
	ea Se	c	c	c	c	د	c	4	c	c	c	
	Sea Segment 12	c	c	c	c	c	c	<b>c</b>	c	c	c	
	Sea Segment 13	c	c	<b>c</b>	c	c	<b>c</b>	c	c	c	c	
	ea Se	c	<b>c</b>	c	c	c	<b>c</b>	c	ے	c	c	

\*\*\*\* MMS DRAFT \*\*\*\* Note: \*\* = Greater than 99.5 percent; n = less than 0.5 percent.

Table 22. -- Probabilities (exorosed as percent chance) that an oilsnill starting as a particular location (Juring the summer season) will contact a certain target within 30 days.

Turaet							4 y	othe	·	ias	۔ 	Ę.	ç											
-	P 1	ρŞ	P 3	30	75	ρĄ	P 7	<b>€</b>	6 d	r 1 n	p11	P12 P	p13 p	d 71d	P15 P	P16 P1	7 61	1 d a	061 0	1 P21	674	P 2 3	b > 4	P 2.5
Land	•	c	c	40	c	7	c	32	ò	c	o. 7	د					_	c		2.8	96	c	ø. 4	:
Bowhead Feeding A	c	c	c	c	c	7	c	7 7	į	c	or or.		14 4	0.7	7	١,	رد ا	c	c	α	С	c	. 7	c
Bowhead Feeding A	c	c	c	c	c	c	c	c	c	c	c							c		٤	c	c	c	c
Retuga Conc. A	۲	c	c	c	c	c	c	c	c	c	c							c		c	c	c	د	c
Conc	c	c	c	c	c	c	c	c	c	c	c							c		۵	c	د	c	c
Whale Migr.	*	c	*	<b>6</b> :	70	*	26	96	•	26	8 7							c		7	c	د	7	E
whale	c	c	ב	c	æ	c	*	7	د	•	16				-			-		52	c	•	<b>℃</b>	٤
Seabird Area 1	c	c	c	7	c	c	c	7	c	c	c							c		E	د	د	٥	c
Seabird Area 2	c	c	o:	c	c	8: 7	c	8.7	16	c	20							2		7	c	c	c	c
Seabird Area 3 .	c	2	c	د	۲	c	c	c	c	د	c						-	c		æ	د	c	œ	c
Seabird Area 4	c	c	c	c	c	c	c	د	c	c	د							د		c	7 8	c	5.4	c
Seabird Area S	c	c	c	۲	c	c	c	د	c	c	c							c		c	c	c	7	7
Seabird Area 6	c	5	c	c	c	c	c	c	c	c	c							c		<b>c</b>	c	2	c	c
Whating (Wainwright)	- 16	c	*	÷	*	;	٠ د	*	œ	<u>د</u> ک	78							c		o.	۲	c	7	c
Whaling (Kaktovik)	c	c	c	۲	c	د	c	c	c	c	c							c		15	:	c	2.5	* *
Sea Segment 1	25	c	77	32	۲	16	_	7	c	c	•							c		c	c	c	c	c
Sea Segment ?	12	c	96	5.4	c	8 7	7	20	7	7	•							<b>C</b>		c	د	c	c	د
Segment	c	<	7	ב	90	12	58	œ N	c	16	54							c		c	c	c	c	c
Segment	c	c	c	c	7.	c	*	32	c	89	36							c		7	c	c	7	c
Sea Segment 5	۲	c	c	c	c	c	•	œ	د	36	5 5							c		15	د	c	œ	c
	c	c	c	c	c	د	c	<b>c</b>	œ	7	œ				•			c		32	c	c	16	c
_	c	c	c	c	c	c	c	c	c	c	د							c		80	•	c	<b>~</b>	c
ea Segment	c	c	c	c	c	c	c	c	c	c	c							c		:	•	ε	26	c
Sea Seyment 9	c	c	c	ב	c	c	c	ċ	c	c	c							<b>c</b>		c	c	c	œ	c
Sea Segment 1∩	c	c	c	c	c	۲	c	c	c	c	c							c		ε	c	c	c	٤
Sea Segment 11	c	c	c	c	c	c	c	c	c	c	c	•						c		c	c	c	c	c
e a	c	c	ċ	c	c	c	c	c	د	c	د							c		c	c	c	c	c
Sea Segment 13	c	c	c	c	c	c	c	۲	c	c	c							c		٤	c	c	c	د
Sea Segment 14	c	c	c	c	c	c	c	c	c	c	۲							c		c	c	c	<b>c</b>	c

\*\*\*\* MYS DRAFT \*\*\*\* Note: \*\* \* Greater than 99.5 percent; n = less than 0.5 percent.

Table 22. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location (during the summer season) will contact a certain target within 30 days.

Target	P 2 6	P27	P 2 R	6 <u>5</u> 9	ρξη	P 3.1	Hypot P32 P	thetic p33 p3	d 7	Spill 35 P3	Loca 5 P37	ition Page	P 39	PLO	P41	P 4.2 I	1 2 7 0	b '' '	P45 P4	70 47d	, P í,	67d d	P 5.0
Land	88	09	c	66	98	. 8 7						c	c	c								76	c
Bowhead Feeding A	c	c	c	c	c	c						c	c	c								2	c
Bowhead Feeding B	×	13	c	*	3.6	œ						c	د	c								c	c
Beluga Conc. 1	c	c	c	c	c	c						c	c	c								c	c
	c	c	c	c	c	c						c	c	c								c	c
Major Whale Migr. A	c	c	c	c	c	c						c	16	c		•					-	7.0	c
ajor Whale Migr.	c	.02	* *	c	œ	œ	٠ د	c c	c	c	c	c	c	c	:		:	*	4) 60	** (	c	œ	*
Seabird Area 1	c	c	c	c	c	c						c	c	c								c	c
<	c	c	c	c	c	c						c	c	c								5	c
Seabird Area 3	7	7	c	c	c	c						c	c	c								7	c
Area	10	54	c	œ	œ	c						c	c	c								c	c
Seabird Area 5	8 7	œ	c	12	<b>%</b>	7						c	c	c								c	c
Seabird Area 6	ထ	7	c	÷	۲.	4						c	c	c								c	c
aling	c	c	c	c	c	c						c	c	c							-	77	c
alin	*	*	c	5.5	8	12						c	c	c								c	c
a Segment	c	c	c	c	c	c						;	32	c								c	c
a Segment	c	c	c	c	c	c						c	7	c								or:	c
a Segment	c	c	c	c	c	c						c	c	7								•	c
æ	c	c	c	c	c	c						c	c	c								oc.	c
a Segment	c	c	c	c	c	c						c	c	c								12	c
a Segment	c	œ	c	c	c	c						c	c	ç								c	c
Sea Segment 7	4	12	c	c	<b>o</b> c	c						c	c	c								c	c
a Segment	•	77	c	∞	œ	ć						c	c	c								c	c
a Segment	۲	9	œ	c		c						c	c	c				•				c	c
10	c	16	c	c	54	c						c	c	c								c	c
a Seyment 1	c	3	c	c		. ~ ~ [						c	c	c								c	c
edment 1	c	c	c	د	7	7 92						c	c	c								c	c
•	c	c	c	c	c	. ·						c	c	c								c	c
s Segment 1	c	c	c	c	c	c						c	c	c								c	c

\*\*\*\*\* MMS DRAFT \*\*\*\* Note: \*\* = Greater than 99.5 percent; n = less than 0.5 percent.

Table 22. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location (during the summer season) will contact a certain target within 30 days.

6

		P 5 2	P S 3	p 5 4	P \$ 5		P 5 7	80.00	959	P 6.0	
Land	c	c	c	ç	c	c	c	c c.	c	c	
Bowhead Feeding A		c	c	c	c		c	c	c	c	
Bowhead Feeding B		c	c	c	c		c	c	c	c	
Beluga Conc. A		c	c	c	c		c	c	c	c	
e Conc.		c	c	c	c		c	c	c	c	
3		57	c	c	c		c	c	c	•	
ajor whale Hi		*	c	۲	c		<b>4</b>	•	c	c	
rea 1		c	c	c	c		c	¢	c	c	
Seabird Area 2		c	c	c	c		c	c	c	c	
Seabird Area 3		c	c	c	c		c	c	c	<u>.</u> د	
Seabird Area 4		c	c	c	c		c	c	c	c	
Seabird Area 5		c	c	c	c		c	c	د	c	
Seabird Area 6		c	c	c	c		c	c	c	c	
halin		26	c	c	c		c	c	c	c	
Whaling (Kaktovik)		c	c	c	c		12	c	c	c	
e		c	c	c	c		c	c	۵	54	
ea Segment		œ	c	c	c		c	c	c	c	
e		82	c	c	c		c	c	c	c	
ea Segment		98	c	c	c		c	c	c	c	
ea Se		7	c	c	c		c	c	c	c	
ea Se		c	c	c	c		c	c	c	c	
ea Segment		c	c	c	c		œ	c	c	c	
ea Se		ċ	c	c	c		œ	c	c	c	
ea Segment		c	c	c	c		7.2	c	c	c	
Sea Segment 10		c	c	c	c		5. 80	c	c	c	
ea Segment 1		c	c	c	c		<b>o</b> c	c	c	c	
ea Segment 1		c	c	c	c		c	c	c	c	
Sea Segment 13		ć	c	c	c		c	c	c	c	
ea Segment 1		•	¢	c	•		(	•	•		

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\*\*\*\* MMS DRAFT \*\*\*\* Note: ++ = Greater than 99,5 percent; n = less than 0,5 percent.

Table 23. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location (during the summer season) will contact a certain land or boundary sequent within 3 days.

Segment							Hype	othet	ical	Spi		ocat	ion											
	<u>a</u>	P2	P 3	5 d	P 5	P 6	P 7	8	6 d	P 10	P7 P8 P9 P10 P11 P12 P13	P12	P13	P 1 4	P15 P16	16 F	P17 P	P18 P	19 P	P19 P20 P21	1 628	2 P23	3 P24	P25
19	c	c	۲	œ	c	c	c	c	c	c	c	c	c	د	c	د		د		c	c	c	c	c
2.3	c	c	c	c	c	c	c	c	32	c	c	c	c	c	c	د	د	c	د	2	-	ε	c	c
25	c	c	c	c	د	c	c	c	7	5	c	c	c	c	c			c						c
26	c	c	c	c	c	c	c	c	c	c	c	c	4	c	c			c						c
. 22	c	_	c	c	c	c	c	c	c	د	c	c	36	c	c			c						c
&C ^'	c	c	c	c	c	c	c	c	c	c	c	٤	20	c	c			c						c
34	c	c	c	c	c	c	c	c	د	c	c	c	c	c	c			د						c
3.5	c	c	c	c	٤	c	c	c	c	c	c	c	c	c	c			د	ر د	٥ ،	c	E	c	c
3.7	c	c	<b>C</b>	2	c	c	c	c	c	c	د	c	c	c	c			c						c
39	c	c	c	د	c	c	c	c	c	c	c	c	c	c	c			د						15
Notes: ** = Greater than 99.5 percen Rows with all values less tha	Greater than 99.5 percent; n = less than 0.5 percent. with all values less than 0.5 percent are not shown.	than valu	99.	S per	rcent than	, n	= less than 0.5 percont percont are not show	is the	an G	).5 4 not	show	ent.	*	**	E M M	DRAFT ****	:	:						

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Segment	P 2 6	P27	P28	P26 P27 P28 P29 P30		P31	HY DO	thet P33	ical P34	Spi P35	11 T	ocat P37	Hypothetical Spill Location P31 P32 P33 P34 P35 P36 P37 P38 P39 P4() P41 P42 P43 P44 P45 P46 P47 P48 P49 P50	9 9 P	4 O 5	4 1 P	4.2 P	43 P4	7 b d '1	)7d S	9 d S	87d /	6 % d	P50
21	c	5	c	c	c	c	c	c	c	c	c	, <b>c</b>	c	c	c	c	c	c	c	c	c	12	c	c
56	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	_	٤	2	c	7	c
2.2	c	c	c	c	c	c	c	c	c	c	5	c	c	c	c	c	c	c	=	د	c	c	16	c
7.5	c	c	c	œ	c	c	c	c	c	c	c	c	c	د	د	۔	c	c	_	c	٥	c	c	c
43	c	c	c	12	c	c	c	c	c	c	c	c	c	c	c	c	c	c	<b>c</b>	c	c	c	c	c
77	د	c	c	12	c	c	c	c	c	c	c	c	c	c	c	c	c	٥	٤	c	_	c	c	c

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Table 24. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location (during the summer season) will contact a certain land or boundary segment within 10 days.

12	Segment	2	P 2	ę. 2	7 d	P S	9	Hypo P.7	Hypotherical Spi P7 P8 P9 P10	tcal P9	so i	===	Location P12 P13		P14 P	P15 P	P16 P17	7 P18	8 p19	9.50	F21	F22	ر د د	P 2 4	P 2 5	
16  18  19  10  11  11  12  12  12  13  14  15  17  18  17  17  18  18  17  18  18  18	15	c	c	c	12	c	c	c	<b>c</b>	<b>c</b>	٠.	c		c								c		c	c	
18  19  10  11  11  12  12  13  14  15  17  18  18  18  18  18  18  18  18  18	16	: c	· c	c	oc.	· c	· c	· c	: c	: c		· c		: c								: :	. c		· c	
19	18	c	c	c	3	c	c	c	c	c	c	c		c								c	c	c	2	
20 21 21 22 23 24 25 25 26 27 27 28 28 29 29 29 29 29 29 29 29 29 29 29 29 29	19	<b>c</b>	c	ς	αü	c	c	c	c	c	c	c		c								c	c	c	د	
22	50	c	c	c	c	c	c	c	7	c	c	c		c								c	c	c	c	
22	21	c	c	c	c	c	=	c	4	20	c	د		c								c	c	c	<b>c</b>	
25  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	22	c	c	c	C	c	c	c	c	4	c	د		c								c	c	c	c	
25  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	23	c	c	c	c	c	c	c	c	9 9	c	c										۵	c	<b>c</b>	c	
26	25	c	c	c	C	c	c	c	c	4	Ċ	4		c								c	c	c	c	
27  08  09  09  09  09  09  09  09  09  09		c	c	c	c	c	c	c	c	c	c	7		<b>∞</b>								c	c	c	c	
28	27	C	c	c	c	c	c	c	c	c	c	c		0,								c	c	c	c	
33		c	c	c	C	c	c	c	c	c	c	c		54								c	C	c	c	
34 nn n n n n n n n n n n n n n n n n n		c	c	c	c	c	c	c	c	c	c	c		œ								c	c	c	c	
34 n n n n n n n n n n n n n n n n n n n	33	c	c	c	c	c	c	E	c	c	c	c		c								c	c	c	c	
55 nn n n n n n n n n n n n n n n n n n	34	c	c	c	c	c	c	c	c	C	c	c		c						_		c	c	c	c	
57 n n n n n n n n n n n n n n n n n n n	. 58	c	c	c	c	c	c	c	c	c	<b>-</b>	c		c								œ	c	٥	c	
39 nnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnn	3.7	c	c	c	c	c	c	c	c	c	c	c		c								80	c	c	c	
** = Greater than 99.5 percent; n = less than 0.5 percent. **** MMS DRAFT Rous with all values less than 0.5 percent are not shown.	39	c	c	c	<b>c</b>	c	c	c	c	c	c	د		c								c	c	c	79	
	Rous	er t all	han valu	99.5 les (	Der ess		••	a les	-			erce show	; ;	•	_		A F T									

	050	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	67d	c	c	c	œ	œ	32	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	87d	7	36	αc.	c	c	۲	c	c	c	c	c	c	c	c	c	<b>c</b>	c	c	c	c
	P 4 7	c	`. 	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	<b>c</b>	c	c
	978	ح	c	c	٥	c	ح	ε	ç	5	۵	c	c	c	c	c	c	c	c	5	c
	P45	c	c	c	c	c	_	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	7 7 d	c	c	c	c	c	ح	c	c	c	c	c	c	c	د	c	c	c	c	c	د
	P43	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	2 7 d	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	<b>c</b> .
	P41	c	c	c	c	c	د	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	D 7 U	c	c	c	c	c	c	c	c	c	2	c	c	c	c	c	c	c	c	c	c
	P 39	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
tion	P38	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	<b>c</b>	c	c	c	c
Loca	P37	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	P36	c	c	c	c	2	c	c	c	c	<b>c</b>	c	<b>c</b>	c	c	c	c	c	c	c	c
ds 1	P35	c	c	c	c	c	c	c	c	c	c	c	2	c	c	c	c	c	c	c	c
tica	P 34	c	c	c	c	c	c	c	c	c	c	c	c	c	د	c	c	c	c	c	c
othet	P 3 3	c	٤	c	c	c	_	<b>c</b>	c	c	c	c	c	c	c	c	c	7	4	7	4
Hype	P32	c	c	c	c	c	c	c	c	c	c	c	c	c <sub>.</sub>	c	c	c	c	c	c	c
	P31	c	c	c	c	c	c	<b>c</b>	c	c	c	c	c	c	c	c	c	c	c	c	c
	P 30	c	c	c	c	c	c	c	c	c	c	c	c	œ	c	<b>c</b>	c	c	c	c	c
	P 2 9	c	c	c	c	c	c	c	c	c	c	c	Ċ	50	5 4	20	7	7	œ	c	c
	P 2 8	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	P 2 7	c	c	c	c	c	c	c	c	c	c	c	¢	c	c	c	c	c	c	c	c
	P 2 6	c	c	c	c	c	c	7	7	7	œ	16	œ	4	c	7	c	c	c	c	c
Segment		2.0	21	2.5	23	56	23	34	37	38	39	7.0	44	75	43	77	4.5	95	47	87	67

Notes: ++ = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

\*\*\*\* MMS DRAFT \*\*\*\*

Table 25. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location (during the summer season) will contact a certain land or boundary segment within 30 days.

P3 P4 P5 P6 P7 P8 P9 P10 P11 P12 P13 P14 P1 P1 P13 P14 P1 P1 P13 P14 P1 P1 P13 P14							Hyp	other	ical	Spi	ו ו	•	ion										
		ΡŞ	₽3	Ρ¢	P 5	P6	Ь7	œ	Ь д	P10	P11	P12		P14	S	_	~	sc sc		_	~		P25
	_	c	c	16	c	· c	c	7	c	c	c		c		c							c	c
	_	5	c	œ	c	c	c	c	c	c	۵		c		د							c	c
	_	c	c	∞	c	c	c	4	c	د	c		c		د							c	c
	_	c	c	œ	c	· c	c	c	د	c	c		c		c							c	د
	_	c	c	c	c	c	<b>c</b>	∞	c	c	c		c		<b>c</b>							c	د
	_	c	c	c	c	c	c	12	20	c	<b>∝</b>		4		c							c	c
	c	c	c	c	c	7	c	c	4	c	œ		c		c							c	c
	c	c	c	c	c	c	c	c	09	c	16		7		c							c	c
1	c	c	c	c	c	c	c	c	c	c	c		c		c							c	c
1	_	c	c	c	c	c	c	c	•	c	4		c		7							c	د
0         0	c	c	c	c	c	c	c	c	c	c	œ		<b>∞</b>		c							c	c
1	_	c	c	c	c	c	c	•	œ	c	7		. 0.		9							<b>C</b>	c
1	c	c	c	c	c	c	c	c	c	c	c		32		5.4							7	c
	_	c	c	c	c	c	c	c	c	c	c		œ		~							c	c
	_	c	c	c	c	c	c	c	c	c	c		c		c							c	7
	_	c	c	c	c	c	c	٤	c	¢	c		<b>c</b>		¢							c	c
1	_	c	_	c	c	c	c	c	c	c	5		c		7							c	c
15	c	c	c	c	c	c	c	c	c	c	c		c		œ							16	c
	c	c	c	۵	c	c	c	c	c	c	c		c		c							12	c
	_	c	c	c	c	c	c	c	c	c	c		c		د							∞	c
	c	د	c	c	c	c	c	c	c	c	c		c		5	•						œ	c
12	_	c	c	c	c	c	c	c	د	c	٥		c		c							c	œ
12	c	c	c	c	c	c	c	c	c	c	c		c		c							c	84
12	c	c	c	c	c	c	c	c	c	c	c		c		c							c	7
	_	12	c	c	c	c	c	c	c	c	c		c		c							c	c
	c	7	c	c	¢	c	c	c	c	c	c		c		c							c	c

Notes: \*\* = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

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P26 P27 P28 P29 P3	Hype 0 P31 P32	pothe	tical P34	Spill P35 P3	1 10 36 P	catio 37 P3	n 8 P30	07d	P41	64.2	1 274	1 77d	ри 5 ри	ç	P47 P	P48 P4	9 P50
		c			_			c	c	7	c	ے		c			
		c			_			c	د	c	c	ے	د	_		_	
		c			_			c	c	4	c	<b>c</b>		_	•		
		c			_			c	c	c	c	c		c			
		c			_			c	c	c	c	c		_			
		_	_		_			c	c	c	c	c		_			
		_	_		_			c	c	د	c	c		c			
		_	c		_			c	c	c	c	c		_		7	
<b>,</b> u u u u ,			c		_			c	c	c	c	c		_			
8 0 0 4 0 0 8		_	c	c	_			c	c	c	c	c		_			
12 n n 8 n n a		_	c		_			c	c	c	c	ء		c	c		
12 n 4 4 n n n		_	_		_			c	c	<b>c</b>	c	c		_	c		
u u u v y u		٠.	_		_			c	c	<b>c</b>	c	c		_	د		
<b>u</b> u y u u 8		_	_		_			c	c	<b>c</b>	c	c		۔	c		
u u v, 2, u u 2		_	_		_			c	c	c	c	c		_	c		
			c		_			<b>c</b>	c	c	c	c		_	<b>c</b>		
8 n 24 20 4 n n			c		_			c	c	_	c	c		_	c		
8 uu v 72 u u		_	_		_			c	c	c	c	c		c	c		
u y 02 u u	c		c		_			c	<b>c</b>	c	<b>c</b>	<b>-</b>		_	c		
4 n 4 8 12 n 12			c		_			c	c	c	c	c		c	c		
8 1 8 1 7 1 1		_	_	c	_			c	c	<u>د</u>	c	c		<b>c</b>	c		
n n 8 n 12 n 12		_	_		_			c	c	c	c	c		_	c		
n n n d n 12		_	_	c	_			<b>c</b>	c	<b>c</b>	c	c		<b>c</b>	c		
12 2 2 2 2 2 2		_	c		_			c	c	c	c	c		_	c		
n n n n 4 12		_	_		_			c	c	c	c	c		<b>c</b>	c		
8		-	_		_			c	c	5	<b>c</b>	c		<b>c</b>	c		
		2	_					c	c	c	c	c		c	c		
		7		_				∞	c	c	<b>c</b>	c		_	c		
32 <b>u</b> u u u u u 28	~	≈	~	7 07		<b>&amp;</b>	c	c	c	c	c	c	c	c	c	c	c
2 4 4 4 4 4 4 4 5	~	∼	<b>6</b> 7		_			c	c	c	c	c		_	c		
			3		_			c	c	c	<b>c</b>	c		c	c		

\*\*\*\* MMS DRAFT \*\*\*\* Notes: \*\* = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Segment							Нурс	the	tical	Spill	Location
•	P51			P 5 4		P.5	P 5 7	PSR	P59	P60	6 PS7 PS8 PS9 P60
7.9	c			7		_	c	c	c	c	
30	<b>c</b>	c	7	œ		16	c	c	c	c	
81	c	c		c	c	28	c	c	7	c	-
82	c	c		c		C	c	c	20	c	
83	c	c	<b>c</b>	c		C	c	c	∞	c	
78	c	c	c	c		C	c	c	c	7	
86	c	c	c	c	c	c	c	c	c	80	
87	c	c	c	c	c	c	c	c	c	œ	
88	<b>c</b>	c	c	c	c	c	c	c	c	4	
89	c	c	c	c	_	c	c	<	c	7	

\*\*\*\* MMS DRAFT \*\*\*\*

Notes: \*\* # Greater than 99.5 percent; n # less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

lable 26. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location (during the winter season) will contact a certain taryet within 3 days after ice breakup.

larget							Нурс	othet	7	Spil	11 10	at	ű											
	Б	P 2	€.	<b>5</b> 4	P S	. P 6		<b>6</b>	6 d	P10 P	P11 P	~	P13 P1	4 P1	5 P16	P17	715	P19	P20 P	21 P2	ح ح	23 P2	4 P 2	~
Land	c	c	c	c	c	c	c	c	-	c					c	c	-	c	_	7			•	
Bowhead Feeding A	c	c	c	c	c	c	c	c	-	c					c	~	ď١	c	~	_			c	
Bowhead feeding B	c	c	c	c	c	c	c	c	c	c	c	c		c	c	c	c	c		c _		_	c	
·	c	c	c	c	c	c	c	c	c	c					c	c	٤	c					c	
Beluga Conc. B	c	c	c	<b>E</b>	c	c	c	c	c	c					c	c	د	c					c	
Major Whale Migr. A	<b>c</b>	c	c	٥	c	-	c	M	9	c					c	~	-	c					c	
ale Migr.	c	c	c	c	c	c	c	M	c	c					c	43	7	c	Š	6		4	~	
Area	c	c	c	c	c	c	c	c	c	د					c	c	c	c					c	
Seabird Area ?	c	c	c	-	c	c	c	~	9	c					c	c	c	c					c	
Seabird Area 3	c	c	c	c	c	c	c	c	c	c					c	c	<del>1</del>	c					c	
Area	c	c	c	c	c	۲.	د	c	د	c					c	c	د	ء					_	
Seabird Area 5	c	د	c	c	c	. <b>c</b>	c	c	c	c					<b>c</b>	c	c	c					c	
Seabird Area 6	c	c	c	c	c	c	c	c	c	c					c	c	c	c					c	
	c	c	c	٥	c	-	c	œ	=	c		_			c	œ.	۴.	c					c	
Whating (Kaktovik)	c	c	c	c	c	c	c	c	c	c					c	c	c	c					14	
ent	c	c	<b>,</b>	16	c	c	c	c	c	c					c	c	c	c					c	
Sea Seyment 2	c	c	c	S	c	c.	c	c	c	c					c	c	د	c					c	
ent	c	c	c	c	c	c	c	-	c	c					c	~	-	c					c	
ent	c	c	c	c	c	c	c	c	c	c					c	7	c	c					c	
Sea Segment 5	c	c	c	c	c	c	c	c	c	c					c	~	<del>-</del>	c					c	
ent	c	c	c	c	c	<u> </u>	c	c	c	c					c	9	-	c					_	
ent.	c	c	c	c	c	c	c	c	c	c					c	7	~	c				14	9	
Sea Segment 8	c	c	c	c	c	c	c	ح.	c	c					c	c	c	c				23	₩	
ent	c	c	c	c	c	c	c	c	c	c					c	c	c	c					c	
Sea Segment 10	c	c	c	c	c	<b>c</b>	c	c	C	c					c	c	c	c					c	
Sea Segment 11	<b>c</b>	c	c	c	c	c	c	c	c	c					c	c	<b>c</b>	د					c	
Sea Segment 12	<b>c</b>	c	<b>c</b>	c	<b>c</b>	c	c	c	c	c					c	c	c	c					c	
Sea Seyment 13	c	c	c	c	c	c	c	c	c	c					c	c	c	٤				C	c	
Sea Segment 14	c	c	c	c	c	c	c	c	c	c					c	c	_	c					c	

lable 26. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location (during the winter season) will contact a certain target within 3 days after ice breakup.

Target						Hypothetical Spill Local	Locat ion
	P 2 6	P 2 7	P 28	P29	P30		
Land	-	c	c	15	c		
Bowhead Feeding A	_	c	c	c	c		
Bowhead Feeding B	c	c	c	8 5	_	•	
Beluya Conc. A	c	c	c	c	c		
Conc.	c	c	c	c	٤		
Whale	c	-	c	c	c		
Major Whale Migr. B	14	5.5	43	~	62		
d Area	c	c	c	c	c		
Seabird Area 2	c	c	c	c	c		
Seabird Area 3	c	c	c	<b>c</b>	c		
Seabird Area 4	c	c	c	¢	c		
Seabird Area 5	<b>64</b>	-	c	=	c		
Seabiled Area 6		c	c	8 7	_		
Whaling (Wainwright)	c	-	c	c	c		
Whaling (Kaktovik)	14	M	c	25	~		
Sea Segment 1	c	c	c	c	c		
Sea Segment 2	c	c	c	c	c		
	c	c	c	c	c		
Sea Seynent 4	c	-	c	c	c		
Sea Segment 5	c	c	c	c	c		
Sea Segment 6	-	-	c	-	c		
Sea Sequent 7	11	-	c	~	ᅮ.		
Se	17	~	c	m	-		
Sea Segment 9	-	œ	¢	8	15		
Sea Segment 10	c	-	¢	~	~:		
Sea Seyment 11	c	c	c	_	c		
Sea Segment 12	c	c	c	c	c		
Sea Segnent 13	c	c	c	c	c		
Sea Seyment 14	c	c	c	c	ح		

Table 27, -- Probabilities (expressed as percent chance) that an oilspill starting at a particular locution (during the winter season) will contact a certain target within 10 days after ice breakup.

	P.	<u>ک</u>	Р3	ρ¢	PS	P 6	P 7	0	<u>}</u>	1	-	P12 P1	3 P1	4 P	5 P16	P17	<u>م</u>	<u>-</u>		P 2.1 F	P 2.2 P	P < 5 P	P24 P
	c	c	c	-	c	c	c	-	~	c	_			_		-	16	ε	٠,	ζ.	c	c	~
Feeding A	c	c	c	c	c	c	c	-	_	c	~:					۲	~	c	. 7	-	~:		
Feeding B	c	<b>c</b>	c	c	c	c	c	c	_	c	c					<b>c</b>	c	د	c	c	c		
	c	c	c	c	<b>c</b>	c	c	c	c	c	c					c	c	c	c	c	c		
nc. B	c	Ė	<b>c</b>	<b>c</b>	c	c	c	c	c	c	د					د	c	Ξ	c	c	c		
Migr.	c	c	c	10	c	-	c	7	~	c	5					7	^	c	-	×	ء		
ale Migr. B	c	۲	c	c	c	c	c	~	c	c	c	c	•	c	ε	¥ 7	2	c	_	62	~	5 5	9 9 9
real	c	c	c	c	c	c	c	c	c	c	c					c	c	ε	c	c	د		
Area 2	c	c	c	-	c	-	c	₩	~	د	~					-	-	c	_	c	c		
Area 3	c	c	c	c	c	c	c	c	c	c	c					د	14	Ξ	-	-	~		
Area 4	<b>c</b>	c	c	c	c	c	c	c	c	C	c					۲	c	c	c	c	-		
Area S	c	c	c	c	c	c	c	c	c	c	c					c	c	c	c	<b>c</b>	c		
Area 6	c	c	c	c	c	c	c	c	c	c	c					c	c	c	c	c	c		
(Wainwright)	c	c	c	٥	c	_	c	•	=	c	7	_				17	s	c	~	6	c		
(Kaktovik)	c	c	c	c	c	c	c	c	c	c	_					<b>c</b>	~	c	c	c	2		•
ignent 1	c	c	-	21	c	c	c	c	<b>c</b>	c	c					c	c	c	c	c	د		
yment 2	c	c	c	9	c	c	c	<b>-</b>	~	0	_					<b>c</b>	c	c	c	c	<b>-</b>		
qment 3	c	c	c	c	c	c	c	4	c	c	_					9	_	c	c	<b>~</b>	c		
gment 4	c	c	c	<b>c</b>	c	c	c	<b>-</b>	_	c	_					15	-	c	c	-	د		
quent 5	c	~	c	c	c	<b>c</b>	c	c	c	c	c					17		c	~	10	-		
gment 6 ·	c	c	c	c	c	c	c	c	c	c	c					6	7	ε	~	٧	~		
√ment 7	c	<b>c</b>	<b>c</b>	c	c	c	c	c	c	c	c					7	~	c	c	•	~	n 21	
gment 8	c	c	c	c	c	c	c	c	c	c	c					c	-	c	c	M	c		
gment 9	c	c	c	c	c	c	c	c	c	c	c					c	c	c	c	¢	c	c	_
qment 10	c	c	c	c	c	c	c	د	c	c	c					c	ε	c	د	c	c		
ent 11	c	c	c	c	c	c	c	c	c	c	c					د	c	c	c	<b>-</b>	c		c
ent 12	c	c	c	c	c	c	c	c	<b>c</b>	c	c					c	c	Ξ	c	<b>-</b>	۵		
ent 13	c	c	c	c	۵.	c	c	c	c	c	c					c	c	c	c	c	c		
gment 14	.c	c	c	c	c	c	c	c	c	c	c					c	c	c	<b>c</b>	c	c		

Note: \*\* = Greater than 99.5 percent; n = less than 0.5 percent, \*\*\*\*\*\*\* MMS DRAFT \*\*\*\*\*\*\*

Table 27. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location (during the winter season) will contact a cartain target within 10 days after ice breakup.

ical Spill Location

Target						4
,	P 2 6	P 2 7	8 2 9		0.50	10000
e	. ~		, c	9,	-	
owhead Feeding	-	c	c		c	
Bowhead Feeding B	-	c	c	51	_	
eluga Conc. A	c	c	c	c	c	
eluga Conc.	c	c	c	c	c	
ajor whale migr.	c	-	c	c	c	
ajor Whale M	19	9	<b>43</b>	٥	27	
eabird Area 1	c	c	c	c	c	
eabird Ar	c	c	c	c	c	
eabird Area	c	c	c	c	c	
eabird Area	~	_	c	~	c	
eabird Area	7	-	c	12	_	
eabird Area	-	c	c	20	-	
hating (wainwri	c	~	c	c	c	
haling (Kaktovik	19	~	c	9	2	
ea Segment	c	c	c	c	c	
ea Segment	د	c	د	c	c	
ea Segment	c	_	c	c	c	
ea Seyment	c	_	c	c	c	
ea Se	~	-	c	_	د	
ea Segment	S	Ļ	<u>د</u> :	_	c	
ea Segment	16	~	c	m	-	
ea Segment	19	s	c	œ	~	
ea Segnent	~	13	c	7	22	
ea Seyment 1	c	_	د	~		
ea Segm	c	c	c	-	_	
ea Segment 1	c	c	c	c	c	
ea Segment 1	c	c	c	c	c	
Commont 1						

Table 28. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location (during the winter season) will contact a certain target within 30 days after ice breakup.

C C C C C C C C C C C C C C C C C C C
CC&&CMC
C 4 C C 40 E
: v = c - c
- C - C - C - C - C - C - C - C - C - C
: C C C
- c

Note: \*\* = Greater than 99.5 percent; n = less than 0.5 percent. \*\*\*\*\*\* MNS DRAFT \*\*\*\*\*\*\*

Grant de superitive

Table 28. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location (during the winter season) will contact a certain target within 30 days after ice breakup.

Target					Hypothetical Spill Location
		P27 P28	P29	P30	
Land	~~		7.1	7	
Bowhead Feeding A	4	2	-	-	
Bowhead Feeding 3	_		25	_	
Beluga Conc. A	c		c	c	
onc.	c		c	c	
ale Migr.			<del>-</del>	~	
Major Whale Migr. B	31 7	27 63	17	29	
Seabird Area 1	c		c	c	
Seabird Area 2	-		c	c	
Scabird Area 3	٣		~	۵	
Area	~		-	-	
Seabird Area 5	~		14	-	•
Seabird Area 6	_	c c	20	_	
Whating (Wainwright)	S		-	~	
(Kaktovi	25	ر م	9	œ	
Sea Segment 1	c		c	c	-
Sea Segment 2	_		c	c	
Sea Segment 3	_	<b>c</b> 2	c	c	•
Sea Seyment 4	<b>~</b>		-	-	
Sea Segment 5	~		~	~	
Sea Segment 6			3	~	
Sea Segment 7	25		~	~	
Sea Segment 8	_		12	~	
Sea Seynont 9	2 1		9	39	
Sea Segment 10			4	14	
Sea Segment 11			_	-	
Sea Segment 12	c	c c	c	c	
Sea Segment 13			د	د	
Coa Coament 16					

Note: \*\* = Greater than 99.5 percent; n = less than 0.5 percent. \*\*\*\*\*\* MMS DRAFT \*\*\*\*\*\*

Hypothetical Spill Location  Hypothetical Spill Location  n n n n n n n n n n n n n n n n n n	Pl P2 P3 P4 P5 P6 N7 P8 P9 Pl0 F11 D12 P13 P14 P15 P16 P17 P18 P19 P3 P34 P24 P25 P24 P25 P4 P25 P24 P
	P2 P3 P4 P5 P6
	P2 P4 P4 P5 P6
	65 63 64 65 65 65 65 65 65 65 65 65 65 65 65 65
	P2 P4 P4 P5 P6
	P2 P3 P4 C C C C C C C C C C C C C C C C C C
	54 CCCCCC CCCCCC
Hypothetical P6 n7 p8 p9 n	2
Hypothetical P4 P5 P6 n7 P8 P9 n n n n n 1 n n n n n n n n n n n n n n n n n	
Hypothetical  N P4 P5 P6 P7 P8 P9  N N N N N N N N N N N N N N N N N N N	
Hypothetical Hypothetical Name of PS P6 P7 P8 P9 P9 P6 P7 P8 P9	

Commence of the contract of th

Table 29. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location (during the winter season) will contact a certain

ofter ice breakun.

Segment	į	,		land land	parti	cular location undary segment Hypothetical	at a particular location (during the wint land or boundary seqment within 3 days af Hypothetical Spill Location
	924	729	P26 P27 P28 P29 P31		P 3 J		
₹5	c	c	y u u u	7	c		
2.7	c	c	c	૭	c		
77	c	c	,	ç	c		

\*\*\*\*\*\* MMS DRAFT \*\*\*\*\*\* Notes: \*\* = Greater than 99.5 percent; n = lass than 0.5 percent. Rous with all values less than 0.5 percent are not shown.

Table 50. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location (during the winter season) will contact a certain land or boundary segment within 10 days after ice breakup.

	P 2 5	c	c	c	c	٥	٤	_	c	c	۲.	-	~	28
	þ č d	c	c	c	c	c	c	c	c	c	c	c	c	c
	P 2 \$	c	c	c	c	c	c	=	c	c	c	c	c	c
	P 2.2	c	c	c	c	<b>c</b>	^	<del>-</del>	_	c	*	<b>,</b> -	-	_
	P21	ء ۔	٠ د	c	c	c	-	ε	c	c	c	c	c	c
	ьζа	c	c	c	c	۲	۲.	<del>-</del>	c	Ξ	-	c	c	2
	P19	c	c	c	c	c	c	c	c	c	c	c	c	c
	P 1 P.	c	c	-	-	-	~	۷.	c	~	-	c	c	_
	P17	c	<b>c</b>	c	c	c	c	<b>c</b>	c	c	<b>c</b>	c	c	<b>c</b>
	P16	c	c	٤	٥	c	c	c	c	_	c	_	c	c
	P15	-	_	~	~	c	2	S	~	<b>c</b>	2	c	c	<u>د</u>
	p14	-	c	_	c	-	-	c	_	c	c	c	c	<b>c</b>
ion	P13	~	-	2	c	c	c	c	c	<b>c</b>	c	c	c	c
Cat	P12	c	c	c	c	c	_	c	c	c	c	c	c	c
Spill Location	F11	<b>-</b>	c	c	c	<b>c</b>	c	c	c	<b>c</b>	c	c	c	c
Spi	P10	c	c	c	c	c	c	c	c	c	c	c	c	c
ical	60	~	-	c	c	c	c	c	c	c	c	c	c	c
Hynothetica(	ο. Ο	-	c	c	c	c	c	c	c	c	c	c	c	c
Hyno	Ь7	c	c	c	_	c	c	c	c	c	۲.	c	c	c
	5	c	c	c	_	c	<b>c</b>	c	c	c	c	c	c	c
	Ьδ	c	c	c	c	c	c	c	c	c	c	c	c	c
	7 A	c	c	<b>c</b>	_	c	c	۵	_	c	c	د	c	c
	P 3	c	<b>c</b>	c	<b>c</b>	<b>c</b>	c	c	=	c	c	c	c	c
	Ь2	c	<b>c</b>	c	c	c	c	c	c	c	c	c	c	c
	P	c	c	c	c	c	E	c	c	c	E	c	c	c
Sejment		2.1	2.5	2.3	2.5	92	2.7	28	53	3.3	3.4	35	3.7	89

BREEFERS MMS DRAFT BERKERKE Notes: \*\* = Greater than 99.5 percent; n = less than 0.5 percent. Rous with all values less than 0.5 percent are not shown.

Table 3), (Continues) -- Probabilities (exoressed as percent chance) that an oilspill starting at a particular location (during the winter season) will contact a certain

Segment P26 P27 P28 P29 P3.)  34	Hypothetical Spill Location							•							0.5 percent. ****** MMS DRAFT *******
P26 P27 P28 P29 P3.7  n n n 1 n n 1 n n 1 n n 1 n n 1 n n 1 n n 1 n n 1 n n 1 n n n n 1 n	Hypothetical			•	•										n = less than
P26 P27 P28 P29 n n n 1 2 n n 1 1 n n 1 1 n n 1 1 n n 1 1 n n 1 1 n n 1 2 n n n n 1 2 n n n n 1 2 n n n n 1 2 n n n n 1 2 n n n n 1 2 n n n n 1 2 n n n n 1 2 n n n n 1 2		P30	c	c	c	c	c	c	c	٤	c	c	c	E	ent;
P26 P27 P28  1	0	P 2 9	_	-	-	-	~	-	<u>.</u>	12	10	~	~	<b>7</b>	perc
P26 P27  1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6	P 2 3	c	<b>c</b>	c	c	c	c	c	c	c	c	c	c	5.6
P26 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	,	P 2 7	c	c	c	۵	c	c	c	c	c	c	c	c	S ue
	760	P26	c	-	c	~	-	-	c	c	c	c	c	c	Greater th

j

Table 31, -- Probabilities (expressed as percent chance) that an oilspill starting at a particular (nestion (during the winter sesson) will contact a certain land or boundary segment within 30 days after ice breakup.

Segment	<u> </u>	42	P 3	<b>5</b> d	P.S	P 5	Hypothetica P7 P9 P9	the t	ical	Spil P10	l Lo	Location 1 pl2 p1	. *	P 1 4	P15 I	P16 F	P17 P	P18 P	P19 P	9 (7d	p21 F	P 2 2 P	P23 P	d 72d	P 2 S
50	c	c	c	_	c	c	c	c	-	c	c	c	c	-	c	c			c	c	c	c			_
21	c	c	c	c	c	c	c	-	<b>~</b>	c	-	c	<b>~</b> `	<b>-</b> -	~	c	-	_	c	c	_	c	c	_	_
2.5	c	5	c	c	c	c	c	c	-	c	c	<b>c</b>	-	c	c	د			c	c	c	c			_
23	c	c	c	<	c	c	c	c	c	<b>c</b>	c	c	₩	_	2	د			c	<b>-</b>	c	c			c
25	E	c	c	c	c	c	c	c	c	c	c	c	c	c	~	c		•	c	c	<b>c</b>	<b>c</b>			_
5.6	c	c	c	c	<b>c</b>	c	c	c	c	<b>c</b>	c	c	c	-	c	ے			c	-	c	c			_
2.2	<b>c</b>	c	c	c	c	د	د	c	_	<b>c</b>	c	c	<b>c</b>	~	œ	c			c	~	_	2			_
5.8	c	c	c	c	c	c	<b>c</b>	c	c	c	c	c	c	<b>=</b>	10	c			c	-	c	_			_
62	E	c	c	c	c	c	c	c	c	<b>c</b>	c	c	c	c	ď	c			c	c	c	c			_
31	د	c	_	c	c	c	c	c	<b>c</b>	c	c	c	c	c	<b>c</b>	c			c	c	c	c			~
\$2	c	c	c	c	c	2	c	c	c	c	c	c	<b>c</b>	c	<b>c</b>	<b>c</b>			c	c	c	_			2
53	c	<b>c</b>	c	c	c	c	c	2	c	_	c	c	5	<b>c</b>	~	c			c	c	c	c			c
34	c	c	c	c	c	c	<b>c</b>	c	c	c	c	د	c	c	₩	_			c	_	c	2			~
3.5	c	c	c	c	c	c	<b>c</b>	c	c	c	c	c	c	٤	c	c			c	c	c	_			_
3.7:	c	c	c	c	c	c	c	c	c	c	c	c	c	c	~	c			c	c	c	_			2
<b>3</b> %	د	c	c	<b>c</b>	c	د	<b>c</b>	c	c	c	c	c	<b>c</b>	c	c	د			c	c	c	c			7
65	<b>c</b>	c	<u>د</u>	c	<b>c</b>	c	c	c	c	c	د	c	c	c	c	<b>-</b>			c	c	=	ے			~
7 0	_	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c			c	ε	٥	c			2
ж Ож	<b>c</b>	<b>c</b>	c	c	c	c	c	-	c	c	-	<b>c</b>	c	c	c	c			c	c	<b>-</b> -	c			c
13	c	c	c	c	c	c	c	4	c	c	m	c	c	_	c	c			c	<b>,-</b>	_	c			c
82	c	c	<b>c</b>	c	c	c	c	7	c	<b>c</b>	~	c	c	c	<b>c</b>	c			_	c	c	c			c
83	د	_	c	~	c	c	c	-	c	c	c	c	c	c	c	c			c	_	<b>c</b>	c			_

Table 31, (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location (during the winter season) will contact a certain akuo.

,	. <u>-</u>	69	
;	2	۽	
	at a particular location (during the winter season) wi	land or boundary segment within 30 days after ice breal	
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Segment						Mysotherical Spill Location
	P26	P27	P 28	ь>б	P 30	
21	-	c	c	c	ر ح	
	-	c	c	c		
2.7	-	c	c	<b>c</b>	c	
		c	c	c	c	
3.2	-	c	c	c	c	
33	-	c	c	c	c	
34	~	-	2	~	-	
3.5	~	-	c	~	_	
36	-	-	c	~	c	
3.7	~	_	c	2	-	
3.8	-	c	c	~	c	
39	✓.	c	c	<b>~</b> 7	c	
0 %	7	c	c	3	c	
4.1	_	2	c	~	<b>c</b>	•
75	c	c	c	14	_	
4.3	c	c	c	12	c	
77	c	c	c	10	c	
4.5	c	c	c	M	c	
9 %	c	c	c	~	c	
24	c	c	c	7	c	
62	c	c	-	c	c	
80	c	c	-	c	c	
8. 1.8	c	<b>c</b>	c	c	-	

Table 32, -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 3 days.

Targets contacted during the open-water season (approx. mid-July through September).

							Hypot	thet	1cal	Soll	100.	10116	_											
	P 1	<b>Ь</b>	p 3	ρţ	٩	a G			٥	1) P	11 P1:	, p	3 P14	P15	P16	p17	6°	0 <b>t</b> d	l ncd	P21 F	4 C C d	P2.3 P	7 t	5 ?
Land	c	c	c	~	c							•	-	-	c	c	-	۲						6
Bownead Feeding A	c	c	c	د	c					•			v	4	c	_	•	c						c
Bowhead Feeding 3	c	c	c	c	c								c	c	c	<b>c</b>	c	c						c
Beluja Conc. A	c	c	c	c	<b>c</b>								c	c	c	<b>c</b>	c	ς.						_
Beluga Conc. ⋈	c	c	c	c	c								c	c	c	c	c	¢						c
Major Whale Migr. A	7.	c	2	2	~:								~	-	c	÷	-	c						د
Major Whale Tigr. H	c	c	c	د	^	د: د	21	~	ر د	-	3 21	c	2	c	21	\$ 4	~	21	c	25	-	25 3	39	~
Seabird Area 1	c	c	٤	۷.	c								c	c	c	c	c	c						c
e a	c	c	<b>~</b> :	c	c								-	-	c	c	c	c						_
	c	c	c	c	c								c	~	c	c	2.0	c						c
eabird	c	c	c	c	c								c	c	c	c	c	c						_
e.	c	c	c	c	c								c	c	c	c	c	c						c
<	c	c	c	c	c								c	c	<b>c</b>	c	c	c						c
Whaling (Wainwright)	~	5	21	<b>5</b> 8	1,								₩	7	c		~	r						c
Whaling (Kaktovik)	c	c	c	c i	c`								c	c	c	c	c	د					•	œ
Sea Segment 1	c	c	-	13	c								<b>c</b>	c	c	c	c	c						c
Sea Segment ?	~	c	17	5	c								c	c	ב	c	c	د						c
Sea Segment 3	c	c	c	c	12								c	c	c	~	-	<b>c</b>						_
Sea Segment 4	c	c	c	c	c	_							~	c	<b>c</b>	٠,	c	c						c
Sea Segment 5	c	c	c	c	c									c	c	₩-	-	د						c
Sea Segment 5	c	c	c	c	c								14	c	c	9	-	c						_
Sea Seyment 7	c	c	c	c	c								<b>~</b>	c	c	54	-	2						~
Sea Seyment 3	c	c	د	c	c								c	c	c	~	c	c	_					~
Sea Seyment 9	c	c	c	c	c								c	c	c	c	c	c						_
Sea Seyment 10	c	c	c	c	ç								c	c	c	c	c	c						c
Sea Segment 11	c	c	c	c	c								c	c	c	c	c	c						c
Sea Segment 12	c	c	c	c	c						•		c	c	.c	٤	د	c						c
Sea Segment 13	c	c	د	c	c								c	د	c	c	c	c						c
Sea Segment 14	c	c	c	c	د								c	c	c	c	c	c						c

Note: 11 = Greater than 99.5 percent? n = less than 0.5 percent. \*\*\*\*\*\*\* MMS DRAFI \*\*\*\*\*\*\*

Table 3?, (Continue)) -- Probabilitins (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 3 days. Targets contacted during the open-water season (approx. mid-July

Dead Feeding A	0								thetical	0	-	incati	-	ć
bird Area 5  control 6  control 8  c	<del>,</del>	P26	P 2 7	P 2 8	рээ	ρşη	P 3 1	. ~	. ~	,		; )	•	:
head Feeding A n n n n n n n n n n n n n n n n n n	Land	c	c	c	13	c	c		c					
Liga Conc. A  Liga Conc. 3  Or Whale Wigr. A  Or Whale Wigr. A  Or Whale Wigr. B  Or	head Feeding	c	<b>c</b>	_	<b>c</b>	c	c	c	c					
Liga Conc. A  Liga Conc. 3  Or Whale Migr. A  Dr Whale Migr. A  Dr Whale Migr. A  Dr Whale Wigr. A  Dr Whale Wigr. A  Dr Whale Wigr. B  Dr	head Feedi	c	c	c	20	<b></b>	c	c	c					
uga Conc. 3  whale Migr. A  or Whale Migr. A  or Whale Wigr. B  or Wigr. B  or Whale Wigr. B  or Wigr. B  or Whale Wigr. B  or Wigr. B  or Whale Wigr. B  or Whale Wigr. B  or Whale Wigr. B  or	aga Conc.	c	c	c	c	د	c	c	c					
bird Area 1  bird Area 2  bird Area 3  bird Area 5  n n n n n n n n n n n n n n n n n n	uga Conc.	c	c	ε	c	c	c	c	c					
bird Area 1  bird Area 2  n n n n n n n n n n n n n n n n n n	or Whale Migr.	د	c	c	c	c	۲	c	c					
bird Area 1  bird Area 2  n n n n n n n n n n n n n n n n n n	or Whale Migr.	1	43	55	~	2 3	c	c	c		•			
Dird Area 2  Dird Area 3  Dird Area 4  Dird Area 4  Dird Area 5  Dird Area 6  Dird Area 7  Dird	bird Area	c	c	<b>c</b>	c	c	c	c	c					
bird Area 3	<b>Lird Area</b>	c	c	c	c	c	c	c	c					
bird Area 4  bird Area 5  lon n 11  bird Area 5  n n n n n n n n  long (Wainwright)  long (Kaktovik)  Seyment 1  Seyment 2  n n n n n n n  Seyment 4  n n n n n n n  Seyment 5  n n n n n n n n  Seyment 6  Seyment 7  Seyment 7  Seyment 10  Seyment 11  Seyment 11  Seyment 11  N  N  Seyment 11  N  N  Seyment 11  N  N  Seyment 11  N  N  N  N  N  N  N  N	bird Area	c	c	c	c	c	c	c	c					
bird Area 5  bird Area 6  n n n 11 n n n n 11 n n n n n n n n n	bird Area	c	<b>c</b>	<b>c</b>	c	c	c	c	c					
ling (Wainwright) n 1 n n 59 1 n ling (Wainwright) n 1 n n n n n n n Seyment 1 n n n n n n n n n n n n n n n n n n	bird Area	10	<b>c</b>	<b>c</b>	7	c	c	c	ء					
Ling (Wainwright)	bird Area	c	c	c	23	-	c	c	c					
Seyment 1 Seyment 1 Seyment 2 N N N N N N N N N N N N N N N N N N N	ling (Wainwri	c	-	c	c	c	c	c	c					
Seyment 1       0	ling (Kaktovi	32	23	c	5.5	۷	c	c	c					
Seyment 2         n	Seyment	c	C	c	<b>c</b>	c	c	c	c					
Segment 3         n	Seyment	c	c	=	<b>c</b>	c	<b>c</b>	c	E					
Sequent 4	Segment	c	<b>c</b>	_	c	c	c	c	c					
Segment 5  Segment 6  1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Seyment	c		c	c	c	c	c	c					
Segment 6 1 1 n n n n n n n n n n n n n n n n n	Segment	c	c	c	c	c	c	c	c					
Segment 7 9 1 n 1 1 n Segment 8 15 3 n 3 1 n Segment 9 1 n 1 1 n Segment 10 n 3 n 2 12 n Segment 11 n n n n n n n n n n n n n n n n n	Segment	-	-	c	c	c	c	c	c					
Segment 9 15 3 n 3 1 n Segment 7 1 6 n 2 12 n Segment 10 n 3 n 2 2 n Segment 11 n n n n n n n n n n n n n n n n n	Seyment	6	-	c	-	-	c	c	c					
Segment 2 1 6 n 2 12 n Segment 10 n 3 n 2 2 n Segment 11 n n n n n n n n n n n n n n n n n	Seyment	13	~	c	<b>~</b> ∵	_	c	c	c					
Segment 10	Segment	-	9	c	۲.	12	c	c	c					
Segment 11 nnnnn 9 n Segment 12 nnnnnn nnn Segment 13 nnnnnnnn	Segment 1	c	~	c	~	~	c	c	c					
Segment 12 nnnnnn nnn n Segment 13 nnnnnnnn Segment 14 nnnnnnnnnn	Segment 1	c	c	c	c	6	c	c	c					
Segment 14 n n n n n n n n n n n n n n n n n n	Segment 1	c	c	c	c	c	c	¢	c					
Sequent 14 n n n n n n	Segment 1	c	c	c	c	c	c	c	c					
	Segment 1	c	c	c	c	c	c	71	c					

Note: \*\* # Greater than 99.5 percent, n = less than 0.5 percent. \*\*\*\*\*\*\* MMS DRAFT \*\*\*\*\*\*\*

Table 33. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 10 days. Targets contacted during the open-water season (approx. mid-July through September).

Target									icat	Spil	ורסנ	catio	۲											
•	P.	ь 2	P 3	9 ·	6 d	6,	P 7	8	6 d	P10 P	P11 P1	P12 P1	13 61	4 P19	5 P16	p17	210	610	d bid	P21 P2	2d či	3 P?	6 P25	
Land	c	c	c	7	c	c	c	~						_		-	0.0	c					_	
Bowhead Feeding A	c	د	c	c	c	c	c	10								~	ç	c						
Bowhead feeding 3	c	c	c	c	c	c	c	c								c	c	د						
Beluga Conc. A	c	c	c	c	c	c	c	c								c	c	c						
Beluga Conc. 3	c	c	c	c	c	c	c	c								c	۲	c						
whate Higr.	21	c	21	5.2	~	2.5	17	<b>2</b>								1	^	ر						
7	c	c	c	c	^	c	71	~							-	<b>6</b> 2	~	21			. •			
eabird Area	c	c	c	יי	c	c	c	c								ε	c	c						
	c	c	~	c	c	c	c	0								-	-	د						
Seabird Area 3	c	c	c	c	c	c	c	c								c	7.	=						
Seabird Area 4	c	c	c	c	c	c	c	c								c	c	c						
eabird	c	c	_	c	c	c	c	c	c	c	c	c	ر د	c	c	c	c	c	c	c c	د	c	~	
Seabird Area 6	c	c	c	c	c	c	c	c								c	c	c						
Whaling (wainwright)	~	2	2	<u>~</u>	21	22	17	92								13	7	c						
halin	c	c	c	c	c	c	c	c								c	2	c					•	
Sea Segment 1	7	د	7	17	c	c	د	c								د	د	c						
ea Se	7	c	19	٥	c	ø	c	-								c	c	c						
Sea Segment 3	c	c	c	c	<del>_</del>	c	œ	۳								7	-	c						
ea Sequent	c	c	c	c	~	c	7.	~							•	12	-	c						
Sea Seyment 5	د	c	c	c	c	c	c	~								12	~	c						
Sea Segment 6	Ε	c	c	c	c	c	c	c								α-	~	c						
Sea Segment 7	<b>c</b>	c	c	c	c	c	c	c								5.4	-	c						
ea Se	c	c	c	c	c	c	c	c								₩;	~	c						
Sea Seyment ?	c	c	c	c	c	c	c	c								c	c	c						
Sea Segment 10	c	c	c	c	c	c	c	c								c	c	c						
Sea Segment 11	c	c	c	c	c	c	c	c								c	, c	c ·						
Sea Seyment 1?	c	c	c	c	c	c	c	c								د	c	c						
Sea Segment 13	c	c	c	۲.	c	c	c	c								<b>c</b>	c	c						
Sea Segment 14	c	c	c	c	c	c	c	c								<b>c</b>	c	c						

Note: \*\* = Greater than 99.5 percent; n = less than 0.5 percent. \*\*\*\*\*\* MMS DRAFT \*\*\*\*\*\*

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Table 33. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 1) days. Targets contacted during the open-water season (approx. wid-July through September).

	Target							Hypo	thetical	Spill	Location	
		P26	P 2 7		6ča	P 3.0	-	p 3 2	P32 P33			
	Land	16	-		53			c	~			
	Bowhead Feeding A	-	c		c			۲	c			
	Bowhead Feeding B	~	7		61			c	2			
		c	c		c			c	c			
	Beluga Conc. a	c	د		c			c	c			
	Major whale Migr. A	c	-		c			c	c			
	Major Whale Migr. R	15	55		~			c	c			
	Seabird Area 1	c	c		c			c	c			
	Seabird Area 2	c	c		د			c	c			
	Seabird Area 3	c	c		c			c	c			
		~	-		۷.			c	<b>c</b>			
	Seabird Area S	=	-		12			c	c			
		~	-		9			c	c			
	Whaling (Wainwright)	c	-		c			c	c			
		36	5 2	c	5.8		c	c	-			
	Sea Seyment 1	c	c		۲			c	c			
	Sea Segment 2	<b>c</b>	c		c			c	c			
_	Sea Segment 3	c	_		c			c	c			
	Sea Segment 4	c	-		c			<b>c</b>	c			
	Sea Seyment 5	_			-			c	c			
	Sea Segment 5	4	_		-			c	c			
	Sea Segment 7	13	~		~			c	c			
	Sea Segment 3	15	6		9			c	c			
	Sea Sequent 3	~	Ģ		~	21		c	c			
	Sea Segment 10	c	4		~			c	c			
	Sea Segment 11	c	-		_			c	c			
	Sea Segment 12	c	c	c	c	_	~	c	c			
	Sea Segment 13	c	c	c	c		c	7	c			
	Sea Segment 14	c	c	c	c	c	c	21	c			

Note: \*\* = Greater than 99.5 percent; n = less than 0.5 percent. \*\*\*\*\*\* MMS DRAFT \*\*\*\*\*\*

Table 34, -- Probabitities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 39 days. Targets contacted during the open-water season (approx, mid-July through September).

	2 P23 P24 P25	8.	<b>∽</b>	c	c	c	1 10 2	61	c	_	4	ď	_	c	=	13	c	-	~	c	=	16	23	31	~	c	c	c	c	c	
	1 62						-																								
	pyn pz	28 10																													
	P19 P	د ر																													
	p13	6\$	14	c	c	c	۰	7	c	-	23	c	c	c	12	2	c	-	~	~	٠,	\$	_	۸.	c	c	c	c	c	c	
	P17	6	¢	c	c	c	52	5.)	c	Λ:	~	c	c	c	33	-	c	7	13	53	54	25	54	<b>~</b>	c	c	c	c	c	c	
	5 P16	c						-																							
	ر ب	-					۵													•											
<b>c</b>	13 P1	7 10																													
ocat io	12 P1	n 27																													
ار	P11 P	12																													
Sni		c			•																										
tical	ρģ	23	2.5	c	c	c	7	c	c	٥	c	c	c	c	22	c	<b>-</b>	7	<b>,-</b> -	c	c	~	c	c	c	c	c	c	c	c	
othe	<b>c</b> .	٥	10	c	c	c	7 2	m	-	12	c	c	c	c	50	c	<b>,</b>	•	10	œ	~	c	c	c	c	c	c	c	c	c	
Hyp	P 7	c	c	c	c	c	40	7	c	c	c	c	c	c	19	c	c	-	14	7	-	c	c	c	c	c	c	c	c	c	
	P6	-	_	c	<b>c</b>		2.5	c	c	=	c	c	c	c	22	c	7	=	M	c	c	c	c	c	c	c	c	c	c	c	
	5	_	c				7								~				2												
	3 P4	c		c	c c		21 25		n 3	2	c				1 28				<b>-</b>	c			c			2	c c		c	c c	
	P2 P3	c			- -					· ·				c c			n 10			c			۔ د			_ _	_ _	<u></u>	_		,
	-	-	c	c	c	c	21	c	c	c	c	c	c	c	~	c	11	~	c	c	c	c	c	c	c	c	c	c	c	c	
arget		Land	puipa	Bowhead Feeding B	eluga Conc. A	Beluga Conc. 8	Major Whate Nigr. A	Major Whale Nigr. B	d Area 1	Seabird Area 2	"Scabird Area 3	Seabird Area 4	r d	Seabird Area 6	Whaling (Wainwright)	Whaling (Kaktovik)	ea Segment 1	ea Segment 2	æ	ea Segment 4	ea Seyment 5	ea Segment 5	a Segment	Sea Seyment A	ea Segment 9	ea Segment 10	ea Seyment 1	Sea Segment 12	ea Seyment 13	ea Seyment 14	

Table 34. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 30 days.

Targets contacted during the open-water season (approx. mid-July

Target							± 7.0	othetical	Spill Location	ocatio
	9	P27	P 2 8	620	P 3.0	P 3.1	p 3.2	P33		
Land		17	c	2.2	15	10	-	17		
Bowhead Feeding A		~	c	_	-	c	c	c		
Bowhead frecing B		~	c	62	0	~	-	œ		
Beluga Conc. A		c	c	c	c	c	c	<b>,</b>		
. Conc.		c	c	c	c	c	<b>c</b>	c		
Major Whale Migr. A		~	_	-	-	c	c	c		
Whale Migr.	52	99	55	13	5 2	~:	~	c		
Seabird Area 1		c	c	c	c	c	c	c		
Seabird Area 2			ď	c	c	c	c	c		
Seabird Area 3		<del>-</del>	c	•-	<b>c</b>	c	c	-		
Seabird Area 4		9	c	-	~	c	c	_	•	
Seabird Area 5		~	<b>c</b>	14	7	-	-	2		
Seabird Area 6		_	<b>c</b>	61	2	<b>,</b> -	c	~		
(Wainwri		~	_	_	-	c	c	c		
Whaling (Kaktovik)		56	c	29	23	~	~	•		
Sea Segment 1		<b>c</b>	c	c	c	c	c	c		
a Seyment		c	c	c	c	c	c	c		
a Segment		~	c	c	c	c	c	c		
Sea Seyment 4		4	c	-	-	c	c	c		
Segment		4	c	~	-	c	c	c		
Segment		9	c	~	۷.	c	c	c		
Sea Segment 7		~	c	~	~	c	c	c	•	
Segment		7	c	15	~	c	<b>c</b>	c	•	
Sea Segment 9		~	~	S	32	c	c	_		
Segment 1		۰	c	~	16	c	~	_		
Sea Segment 11	c	_	<b>c</b>	_	11	~	ç	_		
Segment 1		۔	c	c	-	~	10	-		
Segment 1	c	_	c	_	c	-	7	c		

Note: \*\* = Greater than 99.5 percent; n = less than 0.5 percent. \*\*\*\*\*\*\* MMS DRAFT \*\*\*\*\*\*

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at a particular location will contact a certain land or boundary segment within 3 days. Segments are contacted during the open-water season (approx. mid-July through September). Table 35. -- Probabilities (expressed as percent chance) that an oilspill starting

	P23 P24 P25	c c	د د	c c	د د		c c	c		c		
	P?2	c	c	c	د	c	<b>c</b>	<b>c</b>	~	-	œ	د
	P21	د	c	د	د	c	c	c	٤	c	٤	c
	PZO	c	۲	c	c	c	-	c	9	64	c	د
	61d	c	د	د	c	٥	د	c	c	٥	c	c
	P18	c	c	Ξ	c	د	-	د	د	c	د	_
	P17	c	c	c	c	c	د	c	c	c	c	د
	P16	c	c	c	c	د	c	c	c	c	c	c
	P15	c	د	_	<b>c</b>	c	د	c	د	c	c	c
	P14	د	2	c	c	c	-	د	c	c	c	c
r i on	P13	c	-	_	c	-	7	7	c	c	c	c
420	P12 P	د	c	c	c	c	د	c	c	c	c	c
-	P 11	c	د	c	c	c	c	c	c	c	c	c
2	P 10	c	c	c	c	c	د	c	c	c	c	c
	p7 p8 p9 p10 p11 p12 p13	c	_	~	-	c	c	c	c	c	c	c
, t	8	c	<b>c</b>	c	<b>c</b>	c	د	c	c	c	c	c
2	P 7	c	c	c	c	c	c	c	c	c	c	c
	P 6	c	c	د	c	c	c	c	<b>c</b>	c	c	c
	P 5	c	c	c	c	c	c	c	c	c	c	c
	<b>b</b> 4	2	٤	c	c	c	c	c	c	c	c	<b>c</b>
	P3	c	c	c	د	c	c	c	c	_	c	c
	ь 2	c	c	c	c	c	c	c	c	c	c	c
	P1	د	c	c	c	c	c	ב	c	c	c	c
2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		19	21	53	52	92	2.7	28	3.4	3.5	3.7	3.9

fable 35. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land or boundary segment within 3 days. Segments are contacted during the open-water season (approx. mid-July through September).

\*\*\*\*\* AMS DRAFT \*\*\*\*

n = less than 0.5 percent.

Rows with all values less than 0.5 percent are not shown.

Notes: \*\* = Greater than 99.5 percent;

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Table 36. -- Probabilities (exoressed as percent chance) that an oilspill starting at a particular location will contact a certain land or boundary seament within 10 days. Seyments are contacted during the open-water season (approx, mid-July through/September).

	P25	د	c	c	د	د	c	c	c	c	c	c	<b>c</b>	c	c	_	_	~	35	
	P 2 4	c	۵	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	
	P? }	c	c	2	c	c	c	c	c	c	<b>c</b>	<b>c</b>	c	c	c	c	c	c	<b>c</b>	
	P 2 2	c	c	c	c	c	c	c	c	c	c	-	c	c	c	٨.	<b>~</b> .	17	c	
	P 2.1	c	c	c	c	c	c	c	c	٥	c	-	c	c	c	c	c	c	=	
	b≨u	c	c	c	c	c	c	c	c	c	c	~	-	=	c	-	~	~	2	
	P19	c	٤	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	*
	P 1 8	c	c	c	c	c	c	c	-	c	^	6	~	c	*	~	c	د	c	*
	P17	c	د	c	_	c	c	c	c	c	c	c	_	c	c	c	c	c	c	AFT
	P16	د	c	c	٦.	c	c	c	c	c	c	c	c	<b>c</b>	c	c	c	c	c	.6
	P15	c	c	c	c	c	-	c	_	~	c	٥	7	7	c	7	c	c	<b>c</b>	SEW.
	P 1 4	c	c	c	c	c	c	c	c	c	c	~	c	c	c	c	c	c	c	* *
io Eo	p13	c	c	c	c	c	~	c	m	c	~	œ	S	~	c	c	c	c	c	*
ocat ion	P12	c	c	c	c	c	_	c	c	c	c	c	c	c	c	د	c	c	c	٠ + د. د • د د د
_ 	P11	c	c	c	c	c	-	c	c	-	_	c	c	c	c	c	c	c	c	percent.
Sni	P 10	c	c	c	c	5	c	5	5	<b>c</b>	Ç	c	<b>c</b>	<b>c</b>	c	c	c	c	c	0.5 p
ical	ь 6	c	c	c	c	c	•	-	12	_	c	c	c	c	c	c	c	c	c	than ()
~	8	c	c	c	c	-	~	c	c	c	c	<b>c</b>	c	<b>c</b>	c	c	c	c	c	بر <del>بر</del>
Hypothe	۷ ک	c	c	c	c	c	<b>c</b>	c	c	c	٠ د	c	c	c	c	۳.	c	c	c	less
	ь 6	c	c	c	ء	c	c	c	c	5	c	c	c	c	c	c	c	c	c	n 0•5•0
	P.S.	c	c	c	<b>=</b>	c	c	c	c	c	c	c	<b>c</b>	c	c	c	c	c	c	ent; han (
	p 4	~	~	_	~	c	c	c	c	c	c	c	c	c	c	c	<b>c</b>	c	<b>c</b>	perce ss th
	P3	c	c	c	c	c	c	c	c	c	c	c	c	<b>c</b>	c	c	c	c	c	
	P 2	_	c	c	c	_	c	c	c	c	<b>c</b>	<b>c</b>	c	c	c	c	c	<b>c</b>	<b>c</b>	than 99 values
	2	c	c	c	<b>c</b>	c	_	5	c	c	c	c	c	c	c	c	c	c	c	r th
	_																			Greater than 99.5 with all values le
۰ <b>۲</b>																				
egmen		~	9	00	6	20	-	25	<b>₹</b>	5.5	9:	22	8	6	33	3.4	3.5	2.5	<u>د</u>	ROWS
S			-	_	_		.0			73	•••				۱ ما	,i* 1	ďγ	۲,	r- \	No tes:
																				8

Table 36. (Continued) Probabilities (expressed as percent chance) that an oilspill startial to the second of a particular location will contact a certain land or boundary sequents are contacted during the open-water season (aborox, mid-July to September).	36. (Continued)	at a particular location will contact a certain land or boundary segment	within 10 days. Segments are contacted during the open-water selson	(approx. mid-luly to September).
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and or boundary e open-vater se															
at a particular location will contact a certain land or boundary within 10 days. Seuments are contacted during the open-vator so (approx. mid-July to September).	Location														٠
at a particular location will comithin 10 days. Seuments are con (approx. mid-July to September).	Hypothetical Spill Location	P 5 2 P 5 5		c		c	c	c	c	c	c	•	-	-	-
utar Jays. G-Jul				c	c	c	c -	c	c	c ~	c	c	c	c	c
oartic 10 c ox. mi	8	P 50 P 51	· c	c	c	c	c	~	c	c	c	c	c	_	c
at a p vithir (appro	(	÷	· c	c	_	~	-	12	14	12	~	~	S	c	c
	,	×24 /24	· c	٤	c	c	c	5	c	c	c	c	c	c	c
	6	) }	· c	c	c	c	c	c	c	c	c	c	c	c	c
		426	~	-	~	7	~	-	c	<b>-</b> -	c	c	c	c	c
	Segment	72	3.7	3.8	39	0 7	۲ ا	25	4.3	77	4.5	9 7	25	87	63

Notes: \*\* = Greater than 99.5 percent; n = less than 0.5 percent. \*\*\*\*\*\*\* MNS DRAFT \*\*\*\*\*\*\* Rows with all values less than 0.5 percent are not shown.

-- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land or boundary segment within 30 days. Segments are contacted during the open-water season (approx. mid-July to September). Table 37.

j

	2.5	c	c	c	c	c	c	c	c	c	c	c	c	c	_	~	c	د	~	_	c	2	'n	9	~	_	_	c	c
	P24 P								c															4					
	~																												
	, P2	c	c	Ξ	c	c	=	5	c	c	c	c	_	c	د	ح	c	c	C	c	c	c	c	_	ב	_	_	c	<b>c</b>
	60	2	c	ב	C	c	c	c	c	c	c	<b>C</b>	~	-	c	c	_	c	7	₩;	c	<del>∠</del> ∝	_	<b>c</b>	_	_	c	_	C
	P 2.1	c	ב	c	c	c	-	c	c	c	c	-	_	c	c	c	-	~	2	c	c	c	c	c	c	c	-	c	c
	D 2 d	c	c	c	Ξ	c	c	c	c	c	<b>c</b>	c	~	-	c	c	c	c	1.4	7	-	2	-	c	c	c	c	c	c
		c	=	د	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	<b>c</b>	c	c	c
	P18	ε	٥	c	c	c	c	c	۷.	c	c	~		7	-	c	2	•	9	c	c	c	c	c	c	c	c	c	c
	P17	c	c	c	c	c	_	ء	2	c	c	c	~	~	c	c	<del></del>	c	c	<del></del>	c	c	c	c	c	<del>-</del>	^	c	c
	P16	c	c	c	c	c	ے	c	c	c	c	c	c	c	c	c	c	c	ح	c	٠.	c	c	c	c	c	c	c	c
	1 5	c	c	_	<b>c</b>	c	_	c	~	د	2	c	6	m	7	c	c	~	<b>5</b>	c	c	~	c	c	c	c	c	c	c
	14 P	c	c	c	c	=	~	_	_	_	c	_	7	<u>۔</u>	<b>c</b>	c	c	c	c	c	c	د	c	د	c	c	-	c	c
ion	13 P	_	c	_	_	c	~	_	~	c	_	~	•	_	~:	c	_	c	_	_	_	c	_	c	_	c	c	c	<b>c</b>
ocati	2 P								c																				
۲٥	<u>-</u>																												
pit	0 P1	_	c	c	c	c	~	2	~	C	-	~		_		c	<b>C</b>	c	c	~	_	c	c	<b>~</b>	_	_	₩;	~	<b>-</b>
al Sp	2	c	c	c	c	c	c	c	c	c	c	c	<b>C</b>	c	c	c	د	c	٥.	c	c	c	c	c	c	=	_	c	C
t i c	64	c	<b>C</b>	c	c	c	9	-	13	c	_	c	7	c	_	c	c	c	c	C	c	c	c	c	c	c	c	_	c
pothe	<del>2</del>	_	c	-	c	2	M	c	c	c	c	د	-	c	c	c	c	c	c	c	c	c	c	c	c	_	M	M	-
Hy D	Ρ7	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	P 6	c	c	c	c	c	c	-	C	c	c	c	c	c	c	c	c	c	c	<b>c</b>	c	c	c	c	c	c	c	c	c
	P S	c	c	<b>c</b>	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	<b>c</b>	c	c	c	c	c
	7 d	7	2	~	~	c	c	<b>c</b>	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	-
	P3	c	c	c	c	c	c	c	c	c	د	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	<b>c</b>
	P 2	c	c	c	c	c	c	c	c	c	c	c	ح	c	c	c	c	c	c	c	c	c	c	د	c	c	~	_	c
	-	_	c	c	c	c	c	c	c	c	c	c	_	c	c	c	c	c	_	c	c	c	c	c	c	د	د	c	c
	<i>a</i> .																												
<b>.</b>																													
Segment			س.	~	•	_	_	٥.	~			. <u>~</u>		~	_	_	Δ.	~					~	•	_	_	_	٥.	<b>∽</b>
Se		-	-	_	-	7	<u>.</u>	~	2	۲.	Ċ	2.5	^	2	~	31	3.5	~	~	3	3	~	3	~	7	8	œ	œ	œ

ADDRESS MAS DRAFT ARCESTED Notes: \*\* = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table 37. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land or boundary sequent within 30 days. Segments are contacted during the open-water season

	(approx. mid-July to September).	(approx. mid-Jul
during the open-	within 30 days. Segments are contacted during the open-	within 30 days.
certain land or	location will contact a	at a particular

Segment							HYD	othetical	Spill	ocatio
۵	P26 1	25	P28	624	P 30	P31	P32	P33		
		c	c	c	c	c	c	c		•
		¢	c	c	c	c	c	c		
		c	c	c	c	c	c	c		
	<b>,</b>	c	c	c	c	c	c	c		
	_	c	c	c	c	c	c	c		
	7	~	c	~	c	c	c	-		
	~	~	۲	~	-	c	c	c		
	<b>,</b>	~	c	~	~	c	c	c		
•	~	~	c	S	_	c	c	c		
	_	c	c	m	c	c	c	c		
	~	۲3	c	M	-	c	c	c		
,	9	_	c	m	-	c	c	c		
	~	c	۳	<b>,-</b>	c	c	c	c		
		~	c	16	S	-	c	c		
-		<b>c</b>	c	14	c	c	c	~		
•		c	c	12	-	c	c	c		
-		_	c	m	~	~	c	~		
_		c	c	~	c	~	c	~		
-		c	c	S	c	~	c	~		
_		c	c	c	c	-	c	~		
_		c	c	c	c	c	c	~		
	c	c	c	c	c	c	-	~		
_		c	c	c	c	~	c	c		
_		<b>c</b>	<del>-</del>	c	c	c	c	c		
•		•	•	•	1	•	•	•		

Table 58, -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contaction targets over the expected production life of the tease area, proposed lease offering vs. east deletion alternative vs. west deletion alternative. Probabilities are for soills 1,000 barrels and greater.

	. 3 · · · · · · · · · · · · · · · · · ·	Within	3 days	- 1	41	- 1	i	Within 10	n days		1	;	13	Within	30 days		1
Target	prop.	east del.		west det.		prop.		east del.		west		prop	•	east del.		west del.	•
	Prob Mean	Prob	neau	Prob	rean Rean	Proh	Mean	Prob	Mean	Prob	Hean	Prob	ie a i	Prob	Mean	Prob	Mean
Land	24 0.3	15	٥.	22	0.2	4	1.1	٧,	0.7	63	1.0	3.6	۴.	29	1.	~	1.1
Howhead Feeding A	24 0.3	20	٥.٢	0.2	. 2.0	30	n. 4	92	0.3	92	1.3	ŏ <b>~</b>	، ۲	31	7.0		7.0
Bowhead Feeding B	13 0.1	c	C.	13	0.1		٥.2		u•0		٥.٠	15	2.0	2	0.0	~	0.2
Beluga Conc. A	n 0.0	c	U <b>•</b> U	c	0.0	c	0.0		٥.		0.0	c	 	د	U•0		0.0
a Conc.	c	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	o•.	c	0.0		0.0
Major Whale Migr. A		31	0.4		0.1		9.0		0.5		2.0	35	g. C	<b>8 7</b>	0.7		0.4
hale Migr.		2.5	0.3		0.5		0.7	~	0.4		9.0	<b>2</b> 9	-: -:	23	0.5		6.0
d Area 1		'c	0.0		0.0		0.0	c	0.9		O.C	-	o. C	-	0.0		0.0
Seabird Area 2		7	1.1		0.1		0.1				0.1	17	9.5	15	٦.٢	~	1.0
Seabird Area 3		0	0.1		0.1		0.1	•	1.0		0.1	1,	0 <b>.</b> 2	17	0.2	0	0.2
Area		~	0.0		٥.0		. · ·		0.0		 	17	0.2	~	0.1		0.2
Seabird Area 5		c	0.0		0.1		0.1	c	0.0		0.1	10	٥.1	-	0.0		 0
Seabird Area 6			0.0		0.1		0.1		0.0		5.0	14	0.2	c	0.0		2.0
Whating (Wainwright)	2	7	9.5		٥.٦		0.7		9.0		7.0	,5	1.0	\$\$	٦. 8		9.0
Whaling (Kartovik)		15	٥.٢		0.7		0.7		2.0		7.0	5.5		21	0.2	9	8.0
egment	3 0°0	~	0.0		0.0	œ	1.0	2	0.1		0.0	16	0.2	13	1.0	-	0.0
Segment		7	0.1	c	0.0		1.0		1.0	~	0.0	13	0.2	16	0.2		0.1
Segment		<b>~</b>	0.0	~	<b>0-</b> 0		1.0		1.1		J. n	7.0	0.2	16	٠.٧	~	1.0
Segment		œ	0.1		0.0		٥. ٢		0.1		0.1	-	٥• ٧	92	0.3	~	0.3
Segment	•	7	0.0		0.0		0.2		0.1	4	0.2	<u>.</u>	ŋ• 4	23	0.3	œ	0.3
Segment		ç	-		0.1		0.2		· · ·		0.2	€	n.4	<b>2</b> 2	0.2	6	0.3
Seyment		٥	0.1		0.2		0.2			0	O•2	2.6	٥. ٢	14	0.2	9	0.3
Segment		0	<u>.</u>	16	0.2		0.2		0.1	_	0.5	7 (		-	1.0		0.3
Seyment 3		c	0.0		0.0				0.0		0.1	-	 	<b>c</b>	0.0	0	0.1
Segment 1		c	0.0		0.0		0.0		0.0		o <b>.</b> 0	7	o. 0	c	0.0		0.0
Segment 1		c	0.0		0.0		0.0	c	0.0		0.0	~	0.0	c	0.0		0.0
Seg	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0		0.0
ea Segment 1		c	0.0	c	0.0	c	0.0	c	ē.	c	0.0	c	0.0	c	0.0	c	0.0
Sea Segment 14	0°0	c	ر. د	c	ر. ا	c	0.0	c	0.0	c	<b>ت</b>	c	J.0	c	J. 0	c	ວ•ດ

Note: n = less than 0.5 percent; \*\* = greater than 99.5 percent.

occurring and contacting targets over the expected production life of the lease areas proposed lease offering -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) vs. proposed and existing leases vs. proposed, existing, and Canadian tankering. Probabilities are for spills 1,000 barrels and greater. Table 39.

		Within 3	3 days		: :	1 1 1 1 1 1 1	W	Within 1	10 days			1	W.	Within 30	30 days		- 1
larget	prop.	prop	•	prop.		prop.		Drop.		prop		prop	•	prop.		prop	-
		Sixé	<b>:</b>	Pxist	•			exist		exis	·			PXist	:	exis	
				Cand.						Cand						Cand.	
•	Prob Mean	Prob	Hear	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
Land	7	24	9.8	24	8.0	99		76	8.	9.5	3.0	8	1.8	66	4.6	*	5.7
Bowhead Feeding A		5.1	٦.٧	51	0.7		0.4	42	1.0	62	1.0	α.	3.6	71	1.2	7.1	1.2
d Feeding	~	13	0.1	-	0.1	15	2.6	15	2.0	23	9.3	15	0.5	15	0.7	46	٥.6
		c	0.0	c	0.0		0.0	c	0.0	c	u•u	c	٥.٠	c	0.0	~	0.0
Beluga Conc. 3		c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0
Shale	35, 0.4	77	9.0	4 5	9.0	<b>7</b> 5	9.6	2.5	0.0	59	0 <b>°</b> 0	5.5	0.8	78	1.5	62	1.6
nale Migr.		9	٥.	63	1.0	20	7.0	69	1.2	22	٦. ٢	5.3	1.0	833	<del>۔</del> «	87	2.0
		c	0.0	c	0.0		0.0	c	0.0	c	ŋ <b>•</b> 0	-	•	-	0.0	-	0.0
		. 18	٥.2	<b>4</b>	2.0		0.1	8	0.3	28	0.3	17	7.5	3.6	7.0	3.4	0.4
		23	0.3	23	0.3		0.1	34	0.4	34	7.0	7.	2.0	67	0.7	5.1	7.0
٧ ت		17	٥.2	17	0.2	10	0.1	3.5	D.4	35	0.4	17	2.0	4.5	9.0	25	9.0
Seabird Area 5		9	0.1	ø	n.1		0.1	œ	0.1	œ	0.1	10	0.1	1	<u>.</u>	22	٥.٤
		12	0.1	12	0.1		٦.,	14	0.1	14	9.5	1,4	0.2	14	0.2	52	0.3
(Wainwri		88	٥.	09	0.9		7.0	22	1.3	23	1.3	52	0.	8 7	2.0		2.1
aling (Kak	∞	9	1.0	65	1.1		0.7		1.2	71	1.2	5.5	0.8	56	1.3	82	1.7
a Segment		m	0.0	~	٥.٠		0.1			6	0.1	16	2.0		0.5	<del>-</del>	2.0
a Segment		ec.	٥.1	œ	0.1		0.1		2.0	17	0.2	19	5.0	22	0.3		0.3
Seyment		•		9	0.1	œ	0.1	~	0.1	14	0.2	20	O. 2	37	0.5	3.8	0.5
a Segment		10		=	0.1		0.2		0.3		7.0	31	0.4	61	٥.	29	1.0
æ		13	0.1	14	0.1	ç	2.0		0.5		0.5	30	0.4	61	0.9		1.0
3		17	٥.٢	<b>-</b>	0.2		0.2	4 5	9.0		9.0	<b>3</b> 0	0.4	κ «	0.0	29	6.0
a Segment		34	7.4	35	n.4	<u>_</u>	2.0		0.5		0.5	5,	٦.3	43	9.6	4.5	0.6
a Segment		138	0.2	19	<b>0.</b> 2	_	٥. ٢		0.3	52	ղ. 3	3 6	0.3	<b>8</b> 2	0.3	30	0.4
s e		7	0.0	~	0.0	~	٥.1		0.1	œ	0.1	10	0.1	10	0.1	14	0.2
æ		_	0.0	~	0.0		0.0	~		7	0.0	•	0.0	7	0.0	14	0.2
a Seyment		~	0.0	~	0.0	CJ	0.0	~	٥.	~	u <b>.</b> 0	~	0.0	~	0.0	33	0.4
a S		c	J.0	c	0.0	c	0.0	c	o•0	10	0.1	c	0.0	c	0.0	23	0.8
a Segment		c	0.0	c	0.0	c		c	0.0	13	<u>ن</u> 1.	c	•	c	0.0	<b>~</b>	0.2
a Segment	0°0	c	0.0	25	8.0	c	0.0	c	0.0	25	3°0	c	0.0	c	0.0	25	0.8

Note: n = less than 0.5 percent; \*\* = greater than 99.5 percent.

-- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting land or boundary segments over the expected production life of the lease area, proposed lease offering vs. east deletion alternative vs. west deletion alternative. Probabilities are for spills 1,000 barrels and greater.

**\$** 

Se qment	3 40010	within 3 days east del.	west del.	prop.	within 10 day east del.	west del.	prop.	thin 30 day east del.	west del.
	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Bean	Prob Mean	Prob Mean
15	0	0			•	0.0 u	•	1 0.0	0
18	ċ	Ö	•		•	0.0	•	1 0.0	0
19	0	0			•	0°0 u	•	0°0 u	0
50	ċ	0	•	•		n 0.0	•	1 0.0	0
2.1	ċ	0		0	•	0.0 7	· ·	7 0.1	0
27	n 0.0	0°0 u	0°0	1 0.0	1 0.0	1 0.0	0.0 5	2 0.0	2 0.0
۸:	0	0		0	•	6 0.1	ċ	9 0.1	0
54	0	•	•	0	0	C	ċ	0	0
25	<u>د</u>	ċ		•	•	3 0.0	•	3 0.0	ċ
56	•	•	•	ċ	0	2	<b>,</b> 0.	0	4 0.
2.2	ċ	•	•	Ö	6 0.	C	Ċ	0	0
. 82	ċ	0	ċ	ċ	0	0		0	8 0.
56	ď	ċ	•	ċ	0	_	·	0	0
31	0	0	•	•	•	C	Ċ.	0	
32	ċ	ċ	•	•	Ċ	0°0 r	ċ	0	0
53	0	ċ		•	0	1 0.0	0	0	5 0.
34	•	o.		•	0	5 0.1	ċ	0	0
35	Ċ	o ·			0	<b>C</b>	<b>÷</b>	0	0
36	ċ	ċ	•	•	ċ	0.0 u	=	0	0
37	ċ	•	٠,	o	0	0	Ċ	0	ċ
&C	c.	o ·	o	o	•	<b>C</b>	•	0	• 0 ·
39	ċ	ċ	•	ċ	ċ	0	<u>.</u>	0	0
07	o d	<u>.</u>	•	•	0	2 0.0	ċ	<b>C</b>	0
7.7	•	•	ċ	ò	•	_	ċ	0	ċ
27	ċ	o.	ċ	o	•	<b>C</b>	ċ	C	•
43	ċ	ċ	ċ	•	<u>.</u>	0	<u>.</u>	0	0
77	ď	0	0	ċ	o	0		C	0
4.5	ċ	0	ö	ċ	0	_		0	0
97.	ċ	0	•		۰ د	C	•	0.0 v	0
7,7	0	0	ċ		0	=	•	n 0.0	ò
80	0	•	<u>.</u>	ò	ċ	0		0	0
( 80 (	<b>.</b>	<b>.</b>	o o	ċ	c o	c (		3 0.0	
	ث د	•	•		•	= 0		0.0	
\$	•	·	•	•	-	=	•	) -	•

Note: n = less than 0.5 percent; \*\* = greater than 99.5 percent. Segments with less than 0.5 nercent probability of one or more contacts within 30 days are not shown.

Table 41. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting land or boundary segments over the expected production life of the lease area, proposed lease offering vs. proposed and existing leases vs. proposed existing, and Canadian tankering. Probabilities are for spills 1,000 barrels and greater.

	33	thin 3 day		3	ithin 10 day			thin 30 da	sk
	prop.	prop.		prop.	urop.	ĭ	prop.		•
Segment		×	s T		×	is t		× ×	στ
	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean	0	Prob Mean	Prob Mean	rob
15	0	0	c	0	0	c	0	0	0
18	0	0	0	o	Ċ	0	0	=	0
19	Ċ	0	Ċ	0	0	0	0	0	0
50	Ċ	0	Ċ	ċ	0	0	=	Ċ	Ö
21	0	0	c	0	0	0	C	Ċ	
25	c	ö	ċ	0	0	Ċ	0	0 9	6 0.
2.5	0	0	c	o	ċ	ċ	0	0	•
54	ċ	·	0.0	0	n 0.	n 0.	ċ	1 0.	1 0.
55	•	0	0	ċ	c	c.	c	1 0.	0
26	ċ	0	•	0	7 0.	ċ	0	ċ	1 0.
. 22	ċ	ö	ċ	•	8 0.	8 0.	ċ	4 0.	, 0.
82	ċ	·	o	2 0.	°.	0		3 0.	3 0.
50	ċ	ċ	•	ċ	2 0.	2 0.	Ċ.	7 0.	7 0.
3.1	ċ	•	ċ	<b>o</b> .	ċ	0	·	ċ	•
\$2	0	·	ċ	0	•	ċ	Ċ.	9	9 0.
53	n 0.0	0°0	0.0	1 0.0	0.0	0.0	5 0.1	13 0.1	13 0.1
34	ċ	•	ċ	ċ	0	0	=	ە -	8 0.
	ċ	Ö	•	ċ	•	8 0	=	2 0.	3 0.
36	°.	•	ċ	ċ	٥.	٦ 0	٠ 0	3 0.	3 0.
3.7	ċ	Ċ	ċ	ċ	ċ	0	ċ	•	<u>.</u>
. 58	·	•	ċ	ö	۰0	ء 0	<b>*</b> 0 <b>*</b>	6 0.	6 0.
39	0	•	•	0	•	0	<u>.</u>	0	•
0,5	ċ	0	ċ	ċ	ċ	ċ	ċ	·	0
4.1	င်	•	°	ċ	•	ċ	ċ	ċ	0
25	ċ	ċ	•	o ·	0	ċ	Ċ	Ċ	0 8
43	·	0	<u>.</u>	o ·	ċ	<u>.</u>	<u>.</u>	ċ	0
3 7 7			· ·	= 0	:	= :	<b>.</b>	<b>:</b> (	
4.5	0	0	ċ	ċ	0	:	0	· ·	0 0
97.		ċ	0	0	<b>.</b>	= .	<b>.</b>	·	0
47	င်	ċ	ċ		ċ	<u>.</u> د	= 0	<b>.</b>	•
**************************************	•	0	·	•	<b>:</b>	= 1	=	• •	
67	ċ	0	Ċ	0	0	0	ċ	ċ	0
80	ö	•	0	<u>.</u>	0	c	ċ	<u>.</u>	3
51	•	ċ	0	ċ	0	ċ	=	ċ	•
. 08	ċ	0	ċ	Ċ	•	ċ	ċ	ċ	•
	<u>.</u>	ċ	c	<b>.</b>	ċ	c ·	ċ	ċ	•
85	ċ	0	ċ	ċ	0	÷	Ċ	ċ	0
83	ċ	ċ	o o	0	0	<u>.</u>	ċ	<b>.</b>	o

Note; n = less than 0.5 percent; \*\* = greater than 99.5 percent. Segments with less than 0.5 percent probability of one or more contacts within 30 days are not shown.

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occurring and contacting targets over the expected production life of the lease area, proposed lease offering vs. east deletion alternative vs. west deletion alternative. Probabilities are for spills 10,000 barrels and Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) greater.

Taryet	p 00 p	. I 	hin 3 east del.	s kep	de t	- 1	D 100.	: 1	Within east del.	10 day	ys west	 	prop	3	ithin east del.	30 дау	s del.	
	Prob *	e a u	Prob	Rean	Prob	Mean	Prob	Mean	Prob	Mean	Prot.	Mean	prob	Rean	Prob	Mean	Prob	Mean
Land	11 0	-	7	0.1	10	0.1	3.7	0.5	54	0.3	34	7.0	56	8.0	3.7	0.5	51	0.7
Bowhead Feeding A	11 0	-	6	0.1	٥	0.1	14	0.2	12	0.1	12	1.0	<b>1</b> %	6.0	15	0.2	16	0.2
Bowhead Feeding B	9	٠.	c	0.0	9	0.1	7	0.1	c	0.0	^	٥.1	~	n. 1	c	0.0	7	0.1
Beluga Conc. A	0 c	0.	c	0.0	c	0.0	c	0.0	c	0.0	٤	o.c	ε	0.0	c	0.0	c	0.0
a Conc	0	۰.		0.0	c	0.0	c	0.0	c	0.0	=	0.0	c	0.0	Ξ	0.0	c	0.0
Major Whale Migr. A		~:		2.0	7	0.0	21	2.0	æ	0.2	<b>လ</b>	0.1	66	0.3	54	0.3	16	0.2
nale Migr.	21 0	٠,2		1.0	18	0.2	92 ,	0.3	15	2.0	23	0.3	7 \$	0.4	21	0.2	32	0.4
A	c	0.		0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0
Seabird Area 2		0.	~	0.0	~	0.0	•	0.1	S	1.0	7	0.0	æ	0.1	~	0.1	9	0.1
		•		0.0	S	0.0	œ	1.1	S	0.0	ဒ	0.1	-		~	0.1	0	0.1
		0.		0.0	~	0.0	3	0.0	~	0.0	7	0.0	αċ	0.1	~	0.0	∞	0.1
	3 0	0	•	0.0	•^	0.0	M	0.0	<b>c</b>	0.0	~	0.0	~	٥.	c	0.0	S	0.0
Area 6		-		0.0	ç	0.1	•		c	0.0	9	0.1	9	_ _	c	0.0	•	0.1
(Wainwri		~.		₽•5	0	0.1	92	0.3	25	2.0	14	0.2	3.4	7.0	<b>5</b> 0	0.3	23	0.3
	24 0	٣.		0.1	54	0.3	23	0.3	œ		22	0.3	59	0.3	10	0.1	62	0.3
Sea Segment 1		•		0.0	c	0.0	7	0.0	~	0.0	c	0.0	~	0.1	ç	0.1	c	0.0
nent		•		0.0	<b>c</b>	0.0	9	0.1	<b>.</b>		<del></del>	0.0	Œ		~	 	m	0.0
ne n.t		0.		0.0	-	0.0	4	0.0	~	0.0	2	0.0	٥	- -	~	0.1	9	0.1
Sea Seyment 4		0		0.0	<del>-</del>	0.0	<b>~</b>	1.0	9		7	0.0		0.5	12		12	0.1
lent		•		٥ •	~	0.0	_		•	-	ç	0.1	7	~•	=		-	٠.
		0.		0.0	m	0.0	0	-	~	٥.	6	0.1	14	0.2	10	0.1	14	0.1
nent		<b>-</b>		0.0	~	0.1	0	0.1	S		0	0.1	12	0.1	œ		12	0.1
luau		-		0.0	7	0:1	0	0.1	S	0.0	5	0.1	-	0.1	<b>∽</b>	0.1	=	0.1
Sea Segment 9		0.		0.0	7	0.0	M	0.0	c	0.0	<b>~</b> :	0.0	7	0.0	ε	0.0	7	0.0
nen t		٠.		0.0	_	0.0	~	0.0	c	0.0	~	0.0	~	0.0	c	0.0	2	0.0
nent 1		0.		0.0	-	0.0	-	0.0	c	0.0	-	c. j	-	c.	c	0.0	-	0.0
_	۰ د	0.0	٦	0.0	c	0.0	c	0.0	c	0.0	د	٥.	c	0.0	c	0.0	c	0.0
ē		0.		0.0	c	0.0	c	0.0	c	0.0	ε	0.0	<b>c</b>	0.0	c	0.0	c	0.0
ient 1		٥.		0.0	c	0.0	<b>c</b> .	0.0	c	0.0	c	0.0	٤	0.0	c	0.0	c	0.0

Note: n = less than 0.5 percent; \*\* = greater than 99.5 percent.

occurring and contacting targets over the expected production life of the lease area, proposed lease offering vs. proposed, existing and Canadian tankering. Probabilities are for spills 10,000 Table 43. 2. Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) barrels and greater.

	3 1171111	within 3 days	- 1 1 1 1 - 1	3	Within 10 day	5	; A	Within 30 day	
Target	proo.	prop.	prop.	prop.	prop.	prop.	prop.	prop.	prop.
		exist.	exist.		exist.	exist.		exist.	exist.
			Cand.			Cand.			Cand.
	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean
Land	0	0			70 1.2	72 1.3	8.0 28	86 1.9	91 7.4
ead feeding		9	26 0.3	14 0.2		34 0.4	18 0.2	41 0.5	
Bowhead Feeding B	0	6 0.1	6 0.1	7 0.1	7 0.1	11 0.1	7 (1.1	7 0.1	23 0.3
A Conc. A	0	0	٥.0 د		0°0 u	n 0.0	0°0	0.0	1 0.0
uga Conc.	റ	0		ċ		٥٠٥	ځ	0	
Whale	17 0.2	0	23 0.3	21 0.2	31 0.4	3.0 6.4	50 62	4P 0.7	۰
nale Migr.	0	3		ċ		43 0.6	5.0 25	3 0.	
Seabird Area 1	0	0			0°0 u	0°0		ċ	
Are	0	0		6 0.1		13 0.1		6 0.	9
Seabird Area 3	0	0		•		16 0.2		25 0.3	
	0	0		0.0 7		17 0.2	8 0.1	2 0.	7
	0	0		3 0.0	3 0.0	0°0 7		0	0
¥	0	0		6 0.1		6 0.1			
(Wainwri	0	0	33 0.4	26 0.3	9*0 2%	<b>~</b>	4 0.		٥
	0	9	36 0.5	7		41 0.5	29 0.3		
ent	0	0	1 0.0	۷۰0 ۶	0.0	0.0 %	7 0.1		
'n	0	3 0.0	0.0	6 0.1	7 0.1	к 0.1	۲.0 ۲	13 0.1	~
Sea Segment 3	0	0	3 0.0	0.0 7	6 0.1	7 0.1			٥
ent	0	0	5 0.0	7 0.1		15 0.2		0	7
ent	0	0		7 0.1	19 0.2		14 0.2		
Sea Seyment 6	0	9	8 0.1	9 0.1	23 0.3	23 0.3		0	~
ient	0	_		9 0.1	18 0.2	19 0.7			~
Sea Segment 8	0	0	9 0.1	, 9 0.1	11 0.1	12 0.1	11 0.1	13 0.1	7
ent	0	_	2 n.0	•	3 0.0	4 0.0		0	
ea Segment	0	0	1 0.0	0.0 >	0.0 <	0.0 <	0.0 <	0.0 2	
ea Seyment	0	0	0.0	1 0.0	1 0.0	1 0.0	1.0°0	1 0.0	
ea Segment	0	Ξ.	٥٠٥ د	•	0.0	U.U.,	⊃•°C	0.0 L	7
ea Segm				0.0	۰ 00	7	0°0	0°0	
aent.	0°0	0.0 u	30 0.4	n 0.0	٥٠٥ ر	30 0.4	0°0	0.0	30 0.4

Note: n = less than 0.5 percent; \*\* = greater than 99.5 percent.

occurring and contacting land or boundary segments over the expected production life of the lease area, proposed lease offering vs. east deletion alternative vs. west deletion alternative. Frobabilities are for spills 10,000 barrels and greater. Table 44, -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean)

* <b>1</b>	Mean	0.0	0.1	0.0	0.0	0.0	0.0	0.0	1.0	0.1	0.0	0.0	0.0	1.0	0.0	0.0	0.1	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S rerr west del.	Prob	c	-	~	-	7	-	^	c	œ	<b>~</b> :	~	~	v	~	-	\$	~	10	~	-	~:	-	_	-	<b>,-</b>	-
30 days	Mean	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	٥. ١	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ŋ <b>.</b> ŋ	0.0	u•u
Jithin Jeast del.	Prob	-	-	<b>.~</b> .	<del>-</del>	~	-	-	œ	۷	₩	-	~	*	-	c	~	c	7	c	c	c	c	c	c	-	-
•	Mean	0.0	u•.□	0.0	_ <b>.</b> ∟	ت د`	= ° c	0.0	r.,	r.,	0.0	0.0	0.0	0.1	0.0	0.0	٥.1	0.0	0.1	0.0	<b>.</b> .	0.0	0.0	o.c	0.0	0.0	u•u
9100.	Proh	-	-	7	-	<u>~</u>	-	^	1.0	Ç.	*	^	~	ç	۷.	-	ş	~	10	^	-	~:	-	-	-	-	-
• •	lean	0.0	0.1	0.0	0.	٠.٥	0.0	٠.	-:	c:	٠.	0.1	0.	c.	0.	<b>.</b>	0.	0.	<u>-</u>	· ·	·.	0.	0.	0.	0.0	o:	0.0
E st	Prob M	c	ء	~			-					ء	-	~	- 0	c	<b>5</b> .		2		د				c		
days	Mean	υ.	٠,٠	0.0	0.0	0.0	0.0	0.0	۲.	0.0	0.0	0.0	0.0	0.0	0.0	٥.	0.0	0.0	0.0	0.0	0.0	0.0	٠.	٠.	<b>0.</b> 0	·.	o•0
Within 10 east del.	Prob	c	c	~	c	m	-	-	~	7	<u>-</u>	د	c	~	<b>c</b>	c	-		m		<b>-</b>				c		
- E	Mean	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n. 1	7.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	٠.	0.0	0.0	0.0	0.0	c.	0.0	C.	0.0
. a o J a	Prob	c	c	~			-		∞		~						7		~						c		
;	uea	, U	0.	٠.	٠.	c.	0.	c.	c.	.3	0.	0.	0.	c.	0.	0.	0.	0.	c.	0.	c.	0.	۲.	c.	0.0	c.	c.
west det.	Prob M	c	c	c	c		0	c	ر د		c			0	c		2		-0		c		-			<u>د</u>	c
days	ean	0.0	0.0	0.0	6.0	٠.	c.	C•1	6.1	0.1	۲.	0.1	0.			٠.		0.	٠.	·.	<b>.</b>	c.	0.	c.	٠.	<b>.</b>	C.
within 3 east del.	Prob M														•										c		
1 E it	Mean	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	c.	0.0
1000	Prob																								c		
en t		5	0.	-	2.2	.3	5:	٠,	٠,	*	6	. 21	.3	7:	5 :	91	13	200	6:	د			· •		.5		
Sequent		_	,7	N	~	. 7	. 7	`	`	,7	170	<b>√1</b>	m)	r#1	e-1	re-1	(19	re-1	-	7	7	7	7	7	7	ند	w

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Note: n = less than 0.5 percent; \*\* = greater than 99.5 percent. Segments with less than 0.5 percent probability of one or more contacts within 30 days are not shown.

Table 45. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting dand or boundary segments over the expected production life of the lease areas

	3	ithin 3 days			thin 10 da	SA	7	ithin 30 day	S A
Segment	:	prop. exist.	Orop	•00	oroo. exist.	orop exis	.00	orop. exist.	propexis
	Prob Mean	Prob Mean		Prob Mean	Prob Mean	. 0	Prob Mean	Prob Mean	: 0
	Ċ	c	0	ċ	Ċ	Ċ		Ċ	Ċ.
	ď	ć	C	ď	_			_	· -
		c		Ċ		<u>.</u>		_	
	ċ	Ċ	-	d	_	Ċ			· -
23	0.0	3 O O	3 0 0	3 0.0	7 0.1	7 0.1	5 0.0	10 0.1	10 0.1
	0	c		c	c	· c	c	c	.0
	0	c	0	Ċ	c	Ö	Ċ	0	c
	0	c	0	0	c	c	c	Ċ	0
	0	c	0	ċ	۷.	c	c	0	8 0.
	ċ	0	c	ċ	ċ	6 0.	Ċ	ċ	0
	0	ċ	0	Ö	0	Ċ	Ċ	ċ	2 0.
	<u>.</u>	c	0	ċ	ċ	Ċ	Ċ	Ċ	°.
	0	ċ	ċ	0	0	0	0	Ö	0
	<u>.</u>	c	c	ċ	ċ	ċ	=	ċ	0
	Ö	Ċ	0	0	ċ	Ċ	ċ	Ċ	ċ
	0	c	0	ċ	0	<b>c</b>	Ċ.	Ċ	0
	ċ	ċ	0	ċ	ċ	Ċ	ċ	Ċ	ċ
	0	<u>_</u>	Ċ	ċ	0	ċ	ċ	Ċ	0
	ċ	ċ	0	0	c	c	0	ċ	Ċ
	0	0	ċ	ċ	c	Ċ.	-	•	0
	Ċ	Ö	ċ	Ċ	o O	ċ	Ċ	ċ	ċ
	0	ċ	ċ	ċ	ċ	Ċ	Ċ	Ċ	0
	ċ	ċ	ċ	Ċ	ċ	ċ	<u>.</u>	ċ	Ċ
	ċ	c	ċ	ċ	ċ	ċ	c	ċ	ċ
	ċ	ċ	ċ	0	0	=	ċ	0	0
	0	ċ	ċ	ċ	ċ	ċ	ċ	ċ	0
	c	c	0	ċ	Ö	Ċ.	0	Ċ	0
	ċ	c	0	ċ	0	ċ	c	Ċ	Ċ
	0	ċ	ċ	ċ	Ċ	=	ċ	c.	0
	0	c	ď	c.	0	ċ	0	ċ	0
	0	Ċ	ċ	0	c	ċ	0	Ċ	Ċ
	n 0.	Ċ	Ċ.	ċ	ċ	0	Ċ.	ċ	0
	ċ	Ċ	Ċ	ċ	0	ċ	ċ	ċ	0
	<u>.</u>	Ċ	Ċ	ċ	ċ	=	Ċ	ċ	ċ
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Note: n = less than 0.5 percent; \*\* = greater than 99.5 percent. Segments with less than 0.5 percent probability of one or more contacts within 30 days are not shown.

occurring and contacting targets over the expected production life of the lease areas proposed lease offering vs. east deletion alternative vs. west deletion alternative. Probabilities are for saills 1,000 barrels and greater. Spills occur during the winter season and contacts occur after ice organisms. Table 46, -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean)

Target	D. CO.	within 3 da east del.	West Hela	orop	D.	thin 10 da east Jel.	ys	prop.	Vithin 30 da cast del.	ays iin.	17
	Prob Mean	Prob Mea	n Prob Me	ean Prob	h Mean	Drob Mean	Prob Tran	Prob Mran	Prob Mean	Prob	Mean
Land	10 0.1	5 0.0	10 0	.1 43		27 0.3	41 0.5	42 1.0	٦.	60	٥.٥
dowhead Feeding A		0 0.1		.1 15	0.2	13 0.1	14 0.1	71 0.2	16 0.2	10	0.2
Bowheat Feeding B		0.0	œ	.1				0 0	Ċ	0	0.1
Beluga Conc. A	n 0.0		c	0.				0°0 u	0	<b>c</b>	0.0
Betuga Conc. 4	0°0 u	0°0 'u	c	0.0	0.0	0.0 n	ר. ה	0 <b>.</b> 0	0°0	c	0.0
: thate	9 0.1		^	.1				C.	c C	54	0.3
Major whate Migr. B		25 0.2	37	.5 43				5.7 · 1). *	ċ	53	0.8
æ	0°0		c				ċ	c	Ċ	c	0.0
Area			~					(	ċ	6	٦.،
			9		0.1				ċ	13	0.1
Area			c	2 0.	0.0			7 0.1	ċ	9	
Area			~		0.0			0	ċ	~	0.0
			œ					=	Ċ	6	٥.1
			15					۲.	Ċ.	33	0.4
:	7		2.2		0.4	9 0.1	ċ		ċ	33	0.4
Segment			c					ċ	Ċ	-	0 <b>.</b> 0
Sea Segment ?			c				Ċ		ċ	~	0.0
Sea Segment 3	1 0.0		-	7 0'		3 0.0	ċ	1.0 0.1	•	10	n.1
Segment			~		0.1			с С		19	2.0
			~		- c			0		19	2.0
Sea Segment 5			4		<u>.</u>			ċ		19	0.2
Sea Segment 7			10		٥,			Ċ		17	2.0
		_	11					ċ	<u>.</u>	16	7.0
Sea Segment ?	_		7		0.1	0.0 n		<u>.</u>	0	œ	0.1
Segment	_	_	-		0.0		ċ	<u>.</u>	ċ	₩	o.0
Seyment 1	0		c		0.0			Ċ	Ċ.	c	0.0
Sequent	0.0		c		0.0		°.	<u>.</u>	0	c	0.0
Sea Segment 13	0°0 u	0.0	c	0	0.0	n 0.0	n 0.0	0°0 '	n 0.0	c	0.0
Segment 1	0°0 u		c		0.0		ċ	Ċ.	Ċ.	c	J.J
•					•						

Note: n = less than 3.5 percent; \*\* = greater than 99.5 percent.

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offering vs. proposed and existing vs. proposed, existing and Canadian tankering. Probabilities are for spills 1,000 barrels and greater. Spills occur during the winter season and contacts occur after ice Table 47. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting targets over the expected production life of the lease areas proposed lease breakup.

	A	Within 3 day	- 1	73 111111	thin 10 day	· · · · · · · · · · · · · · · · · · ·	M	Within 30 day	S/
Target	prop.	prop.	prop.	prop.	prop.	prop.	nrop.	prop.	prop.
		exist.	exist.		exist.	Pxist.		exist.	exist.
			and.			Cand.			Cand.
	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Nean	Proti Mean	Prob Bean	Prob Mean	Prob Mean
Land		0	21 0.2	43 0.6	74 1.3	74 1.3	62 1.0	90 2.3	90 2.3
Bowhead Feeding A		0	31 0.4	15 0.2	41 0.5	41 0.5	71 0.2	49 N.7	7.0 67
Bowhead feeding B	8 0.1	0	8 0.1	9 0.1	9 0.1	0 0.1	9 0.1	9 0.1	
Beluga Conc. A		0	0.0 u	0°0 u	٥٠٥	0°0 u	0°0	0.0 u.	0°0
Beluga Conc. B		0	0°0 u	0°0	0°0	u 0.0	0°C		
whale Migr.	9 0.1		20 0.2	15 0.2			27 0.3	56 0.8	8.0 78
ale		C	58 0.9	43 0.6	62 1.0	65 1.0	5.3 O.8	_	
d Area 1		0	۰ 0.0	n 0.0.			۰ 0 0	0°0 u	اء 0•0
•		0	16 0.2	9 0.1	25 0.2	22 0.2	11 0.1	9	26 0.3
d Area		0	18 0.2	8 0.1			13 0.1	34 0.4	
d Area		0	0.0 u	2 0.0			7 0.1	11 0.1	
		0	3 0.0	0.0 7			5 0.0	5 0.0	
d Ar		0	8 0.1				9 0.1	0.1	
		0	43 0.6	25 0.3		54 O.8	ç		
		8	28 0.3		~		33 0.4	39 0.5	39 0.5
		0	3 0.0	0*0 7					
Segment		0	1 0.0	3 0.0			6 0.1		14 0.2
Segment	1 0.0		0.0 %	0.0 7	9 0.1	9 0.1		25 0.3	26 0.3
Segment	-	_	6 0.1	7 0.1			19 0.2	C	9
Seyment		0	7 0.1	10 0.1				0	
Segment		_	11 0.1	12 0,1				39 0.5	40 0.5
Segment		0	15 0.2	13 0.1			17 0.2	25 0.2	
S		0	12 0.1	13 0.1				17 0.2	
Segment 9		0	5 0.0	6 0.1		7 0.1	8 0.1	8 O.1	
Seyment		0	1 0.0	2 0.0			3 0.0	0.0 ₹	
Segment		0	٥٠٥	n 0.0	n 0.0	0°0 u	۰ 0 س	۰ 0.0	1 0.0
Segment	0°0	0	٥٠٥ د	0°0	0°0	0°0	0.0	n 0.0	0°0 u
edme	0°0	0.0 c	0.0 u	0.0	0.0 u	U.0	0°0 "	0.0	0°0 L
Segment	0.0	_	n. n	O. C	n•0	1. O	: · · ·	0°0	n•n

Note: n = less than 0,5 percent; \*\* = greater than 99,5 percent.

occurring and contacting land or boundary segments over the expected production life of the lease area, proposed lease offering vs. east deletion alternative vs. west deletion alternative. Probabilities are for spills 1,000 barrels and greater. Spills occur during the winter season and contacts occur after ice breakup. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) Table 48.

	3	Within 3 days	: :	3	ithin 10 day	: :	in	hin 30 da	s X
Segment	dop.	. ب	west del.	prop.	east del.	west del.	prop.	east del.	west del.
	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean
50	0	0			•	0°0 u	1 0.0	•	
2.1		Ö		0	•	3 (1.0)	5 11.1		•
2.5	0	Ċ			•	1 0.0		•	•
23	Ö	0	•	3 0.0	•	0.0 2	0.0 >	0.0 3	
~	0	Ö	0			0.0 5	0		•
. 56 .	ຕໍ	ċ			0	1 0.0		1 0.0	Ċ
2.2	ċ	0	0	•		9 0.1		9 (1.1	Ċ
28	°.	ċ	·	•	0	5 0.1		9 0.1	0
56	ċ	ċ	0		0	0.0 5	C	0.0 %	0
31	ċ	Ö	ċ		0	٥٠٥ د		C	0
32 .	ċ	ċ	o.	•	•	0°0 u	_	2 0.0	ċ
33	•	0	ċ	•	0	U.O.	C	0	0
34	ċ	°	0		0	0.0 4	=	0	0
35	°	<u>.</u>		•	0	0.0	Ξ.	C	0
36	ö	o.	o			<u> </u>	÷	0	0
37	ċ	ċ	ö	•	•	0	0	0.0 5	0
3.8	ċ	ċ		ċ	•	0°0 u	0	0	0
39	0	0	0		0	0	Ċ	6 0.1	0
6.0	o	ċ	°	0	0	<u> </u>	0°0 2	0°0 u	•
7.1	0	ċ	ċ	°.	•	Ξ	ċ	0°0 u	0
45	°.	•	0		•	0	c	_	0
4.3	0	o	c	°.	ċ	ح	ċ	C	0
77	•	ċ	•	0	0	0.0 5	ċ	0	0
4.5	0	0	o	•	ċ	ت	c	C	0
25	0	0	0	•	0	ے	÷	n 0.0	0
80	ċ	Ċ	0	•	0	0	=	0	0
	Ċ	ċ	o	•	•	C	Ċ	0.0 <	0
. 82	۰0 د	0.0	0	0.0 u	0	0°0 u	2 0.0	1 0.0	1 0.0
83	•	·	•	0°0	•	D.O.	o•o	0.0	

Note: n = less than 0.5 percent; ++ = greater than 99.5 percent. Segments with less than 0.5 percent probability of one or more contacts within 30 days are not shown.

Spills occur during the winter season and contacts proposed lease offering vs. proposed and existing leases vs. proposed, existing, and Canadian tankering. Probabilities are for spills 1,000 barrels and greater. Spills occur during the winter season and contacoccur after ice breakun. Table 49. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting land or boundary segments over the expected production life of the lease area,

prop. exist. Cand. Prob Mean	- m m m n		2 4 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5
Within 30 days prop. rxist. n Prob Mean B	1 0.0 3 0.0 13 0.1 5 0.0		-
arab.	1 5 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20000111	
prop. exist. Cand. Prob Mean	10.0 2.0 2.0 2.0 2.0		
Within 10 days orop. rxist. n Prob Acan I	10.0		
proo. Prob Hean	0.0		
pron. exist. Cand. Prob Mean	00000		
uithin 3 days pron. exist. n Prob Mean			
prob Hean		555555	
ın t			
Seyment	19 20 22 22	,	・ さままままままななななななななない 作ときならできない。

Note: n = less than 3.5 percent; \*\* = greater than 99.5 percent. Segments with less than 0.5 percent probability of one or more contacts within 30 days are not shown.

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Table 50. - Probabilities (expressed as percent chince) of one or more spills, and the expected number of spills (mean) occurring and contacting targets over the expected production life of the lesse are a proposed lease offering vs. east deletion alternative vs. west deletion alternative. Probabilities are for spills 10,000 barrels and greater. Spills occur during the winter sesson and contacts occur after ice breakup.

Target	prop.	Within 3 days east del.	Est.	pron.	within 10 days east Jel.	west del.	, Wi	Within 39 days east del.	west del.
	Prob Mean	Prob Yean	Prob Mean	Proh Mean	Prob Nesn	Prob Mean	orob Mean	Prob Mean	Prob Mean
Land	0.0 4		4 0.0	21 0.2	13 0.1	5.0 0.5	3.6 7.6	21 0.2	32 0.4
Bowhead Feeding A	5 0.0	U*U 7	0.0 7	7 0.1	<b>C</b>	٠.1	0 0.1	7 0.1	
Bowhead Feeding H				V*U 7	U.O.		6*0 %	n 0.0	0.0
Beluga Conc. A					C	n n.0	0.0	0.0	
Beluga Conc. B			0 <b>.</b> 0	0.0	_		0°0		
Whale Migr.	0.0 7			0	0		13 7,1	10 0.1	<del></del>
Whale		10 0.1	18 0.2	21 0.2	C	21 1.2	38 13.3		28 0.5
5				0°0	C	n ).0	0°0 u		
Seabird Area 2				0°U 7	3. O.O	1 g.n	0.0 >		
Seabird Area 3				3 0.0	_	3 0.0	6 0.1	0.0	
Seabird Area 4				C	0.0	J.O.			
Seabird Area 5				2 3.0	n 0.0	0.0 %	0°0 ¿	n 0.0	
				0	U•U	0.0			
			7 0.1	11 0.1	C	9 0.1			16 0.2
a	13 0.1	3 0.0		C	U*U 7	14 0.2	16 0.2	0.0 8	
e			0°0 u	C	. 0.0	0.0 n			
0		0°C u	0.0 u	1 0.0	1 0.0	1 0.0			
9			0.0 u	0	1 0.0	1 9.0			
æ				C	3 0.0	3 0.0			
Sea Segment 5	1 0.0	1 0.0	1 0.0	0.0	3 0.0	۰, 0,0	9 0.1	6 0.1	9 0.1
0					3 0.0	5 0.1			
6			0.0 7		3 0.0	6 0.1			
ъ				6 0.1	2 0.0	6 0.1	7 0.1		
a Segment			0.0		C	3 0.0	С		
egment 1				1 0.0	0		1 0.0		
ea Seyment 1	0.0				0		0°0 u		
ea Seyment 1					_	0.0 u			
Seg				0°0	C		0		ċ
ea Seyment 1	0.0 u		0°0	0. C	C.C	0°0 u	0°0 u		
	•	•							

Note: n = less than 3.5 percent; \*\* = greater than 99.5 percent.

occurring and contacting targets over the expected production life of the lease area, proposed lease offering vs. proposed and existing leases vs. proposed, existing, and Canadian tankering. Probabilities are for spills 10,000 barrels and greater. Spills occur during the winter season and contacts occur after ice Table 51. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean)

	3	Within 3 days		3	ithin 10 day		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Wirbin 30 day		
Taruet			Drop.	0100			ישטעם.			
-	1	exist.	exist.		exist.	exist.	<u>.</u>		)	
			Cand.			Cand.			Cand.	
	Prob Mean	Prob Nean	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mea	<b>c</b>
Land	0			C	3 0.		ت	2	~	
Bowhead Feeding A	5 0.0			•	20 0.2	20 02	9 0.1			
Bowhead Feeding B	0		0.0	0	0			0	7	
۰	C	0°0 u		n 0.0	0.0	ں• ں ں	ت د د			
Conc	0		ċ	0	Ċ		=	0		
ajor whate M	0		ċ	0	6 0.		.م 0	C		
nale Migr.	-		32 0.4	21 0.2	34 0.4	2		3 0		
Seabird Area 1	0		•	0	0		ċ	0		
Seabird Area 2	0		0	0.0		c	\$ 0.0			
	_		0	0	0 0.		ċ	0		į.
	0		ċ	0	ċ		0	C		
	0		ó	0	0		Ċ.	0		
	0		ċ	0	0		=	0		
(Wainwr i	0		<u>.</u>	0	ċ		Ċ	1 0	_	
a (j	0		0	0	, 0 9	ç	ċ	0		
Segment	0		0	2 0.0	ċ		ċ	0	0	
a Sey	0		ċ	0	Ė		=	0	0 9	
a Segnent	0		•	0	ċ		=	2 0.	2 0	
a Segment	0		ċ	9	C			3 0	3 0	
•	_		o.	C			ە 0.	0	0	
Se	0		0	C	0			9 0.	0 0	
Se	0		0	C	C		8 O.1	0	1	
a Segment	0		C	0	0			•	0	
Se	0		0	_	•	3 0.0	0.0	c	C	
a Sejment	0	=	ċ	Ċ	c.	<u>.</u>	ċ	ö	=	
ea Segment	0	0	0°0	•	n 0.0	0	ċ	•	0	
ea Segment	0	0	ċ	ċ	ċ	•	0°0 u	·	0	
uaшña	0°C u	۰ 0 د	۰ 0 ر	0°0 u	0.0 u	0.0 u	0°0 u	0°0	0°0	
ea Segment	0	0	n 0.0	•.	0.0		0°0	0	0	
		•								

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		0.			
ean)	9.0	proposed lease offering vs. east delution alternative vs. west deletion alternative. Probabilities are for	e c		
E) s	e ar	Set	ه د		
n i l l	Seal	ilit	aft		
ofs	thr	obab	C C UI		
Der.	o f	Ċ	ts 0		
ח ש	1 16	1 < 0	ntac		
et e	inn	1601.	0 1 00		
O X i	duct	alte	שה חנ		
the	d ore	tion	5638		
and	Pete	dele	ter		
115,	e x n	est	E		
spi	the	3 . 8	t he		
more	0 0 0	ر د ده	ıring		
.0.	ents	rnati	ur de		
f on	sejmi	alter	0 C C		
ە ( )	ary	ion	i ( 1 s		
hanc	puno	alot	Sp		
percent chance) of one or more spills, and the expected number of spills (mean)	land or boundary segments over the expected production life of the lease area.	st d	spills 10,000 barrels and greater. Spills occur during the winter sesson and contacts occur after ice		
erce	and		grea		
		57 61	ب د د د		
SSed	tacti	ferir	rels		
xpre	000	e of	bar		
s (e	<b>Pue</b>	leas	0000		
itie	occurring and contacting	pas	s 10	.co	
abil	1000	ropo	1114	oreakup.	
52 Probabilities (expressed as	0	a	r	£	
;					
5.7.					

Segment	0.00	rob. east del.	thin a east del.	days	We st	- 1	prop.		thin 'east	Within 10 days east del.	west del.	¢ ; ; ;	3ron.		hin 30 rast del.	Within 30 days rast del.	west del.	· ! . !
	Prob	Mean	Prob	Mean	Prob	นิกลก	Proh	Mean	Prob	Nean	Prob	Mean	Prob Me	Hean P	Prot	Mean	Prob	Mean
21	c	, U <b>•</b> 0		٥.،	c	0.0	~	0.0	-	0.0	_	0.0	٠ ٥٠	<b>-</b>	^	0.0	~	0.0
<b>?</b> ?		0.0	c	0.0	c	0.0	c	<b>u.</b> 0	c	0.0	c	0.0	1 0.0	=	c	0.0	c	0.0
2.3		0.0	-	ŋ <b>.</b> 0	-	0.0	-	0.0	-	0.0	-	0.0	۰ ~	c	~	0.0	~	0.0
25	c	0.0	c	.00	c	0.0	-	0.0	-	0.0	-	0.0	<u> </u>	=	,-	0.0	-	0.0
56		0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	ت. ت	1 0.	c	-	0.0	_	0.0
2.7		0.0	c	0.0	c	0.0	7	0.0	<b>m</b>	0.0	7	0.0	\$ 0.	_	7	0.0	5	0.0
28		0.0	c	0.0	c	0.0	~	٥.	~	0.0	2	0.0	S 0.	=	7	0.0	7	0.0
62		0.0	c	0.0	c	0.0	-	٠.	-	0.0	-	0.0	, n.	U	~	0.0	~	0.0
3.2		0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	1 0.0	С	-	0.0	-	0.0
3.3		0.0	c	. 0.0	c	0.0	c	0.0	c	0.0	c	0.0	<u>-</u>	<b>-</b>	_	0.0	,-	0.0
34		0.0	c	o.0	د	0.0	~	0.0	-	0.0	~	0.0	4	=	~	0.0	7	0.0
35		0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0		c	د	0.0	-	0.0
3.7		0.0	c	0.0	c	0.0	-	0.)	c	0.0	-	0.0	, 0 ,	0	-	0.0	~	0.0
33		0.0	c	0.0	c	0.0	c	0.0	c	o. C	<b>c</b>	0.0	٠,	0		0.0	-	0.0
39		0.0	c	0.0	_	0.0	7	0.0	2	0.0	7	0.0	6 0.	-	~	0.0	ç	0.1
C. <b>7</b>		0.0	c	0.0	c	0.0	<b>c</b>	0.0	c	0.0	c	0.0	1 0.	C	c	0.0	-	0.0
75		0.0	c	٠.٠	c	0.0	· -	0.0	c	0.0	-	0.0	1 0.	0	د	0.0	-	0.0
43		0.0	c	0.0	c	0.0	<b>,-</b>	0.0	c	0.0	-	0.0	1 0.	0	۔	0.0	-	0.0
77	c	0.0	c	0.0	c	0.0	-	0.0	c	0.0	-	0.0	<u>,</u>	Ú	ء	0.0	-	0.0
81		0.0	c	0.0	c	0.0	c	0.0	c	ت ت	c	0.0	1 0.0	<b>-</b>	-	0.0	-	0.0
82	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	- 0	0.	-	0.0	-	0.0

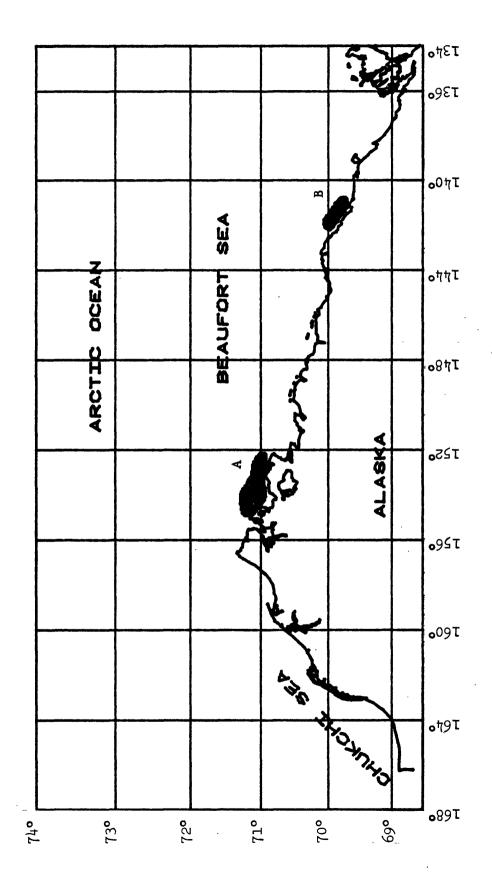
Note: n = less than 0.5 percent; \*\* = greater than 99.5 percent. Segments with less than 0.5 percent probability of one or more contacts within 30 days are not shown.

occurring and contacting land or boundary segments over the expected production life of the lease area, proposed lease offering vs. proposed ease vs. proposed, existing, and Canadian tankering. Probabilities are for spills 10,000 barrels and greater. Spills occur during the winter season and contacts occur after ice breakup. Table 53. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean)

	(A)	Within 3 days	* 1 * 1 * 1 * 1 * 1 * 1 * 1 * 1 * 1 * 1	3 · · · · · · · · · · · · · · · · · · ·	Within 19 days	; ; ; ;	in	Within 30 days	5, S,
Sequent	prop.	prop. exist.	prop. exist. Cand.	prop.	prop. exist.	prop. exist. fand.	prop.	prop. exist.	prop. exist. (and.
	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Bean	Prob Hran	Prob Mean	Prob Mean
50	n 3.0	0	•	0.0		0.0	0°0	1 0.0	
21	0	0	•	2 0.0	4 0.0	0.0 7	0°0 2	6 0.1	6 0.1
2.2	0	O	•	0°0 u			1 0.0	1 0.0	0
23	1 0.0	2 0.0	2 0.0	C	.0.0 7	0.0 7	0.0 %	6 0.1	6 0.1
54	Ċ	0		0°0	0				0
25	0	0	•	_	0	=	1 n.c		0
92	•	C	•	۵۰0 س	1 0.0	1 0.0	0.0	0.0 <	0
2.2	ċ	0		0					0
28	Ċ	0		0	0	C			C
59	0	C		1 0.0		=			0
~	ď	0	•	0	ċ	0°0 u			0
33	ċ	0		0°0 u	ċ	0			0
71	ċ	0	•	0	ċ	6 0.1			0
35	ċ	0	0	0	o	=		2 0.0	0.0 5
36	ċ	0		<b>C</b>	·	0°0			0
37	°.	0°0 u	•	1 0.0	1 0.0	1 0.0	0°0 2	0.0 %	
38 ·	ċ	0		0	ċ	0°0 u			0
39	•	0	o.	0	·	0	6 0.1	6 0.1	6 0.1
0,7	ċ	0	•	0	ċ	Ξ	<b>-</b>		0
27	c C	0	0 0	1 0.0	1 0.0	1 0.0	C		0
٤٦	å	0		0	ċ	<u> </u>	0		0
57	•	0	•	0	0	0	_	1 0.0	0
80	0	0	•	0°0 u	0°0	0°0	0°0	1 0.0	0
24	ď	0	0°0	٥٠٥ د	۰ 0.0	0°0	1 0.0	3 0.0	3 0.0
82	ċ	0	•	٥٠٥ س	0°0 u	۰ 0.0	1 0.0	0.0	0

Note: n = less than 0.5 percent; \*\* = ureater than 99.5 percent. Segments with less than 0.5 percent probability of one or more contacts within 30 days are not shown.

Appendix A



Map showing the locations of Bowhead whale feeding areas A and B, Diapir Field OCS Lease Offering (June 1984): cross hatching indicates areal extent. Figure A-1.

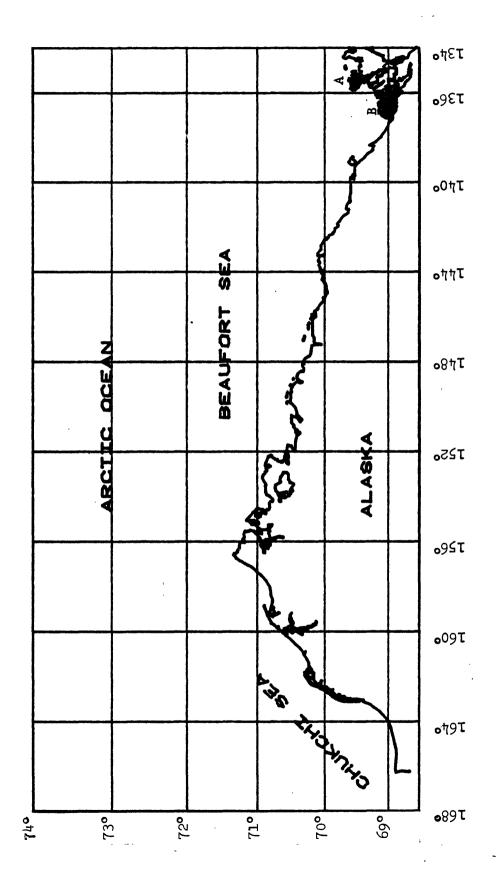
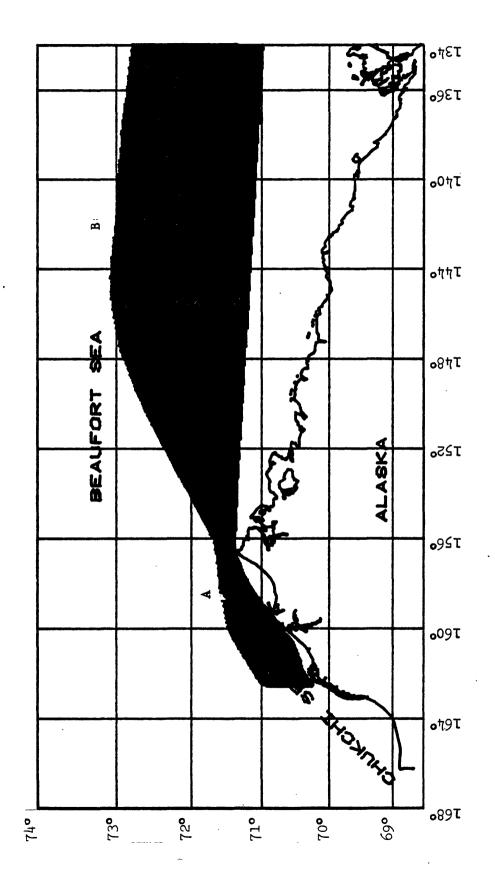
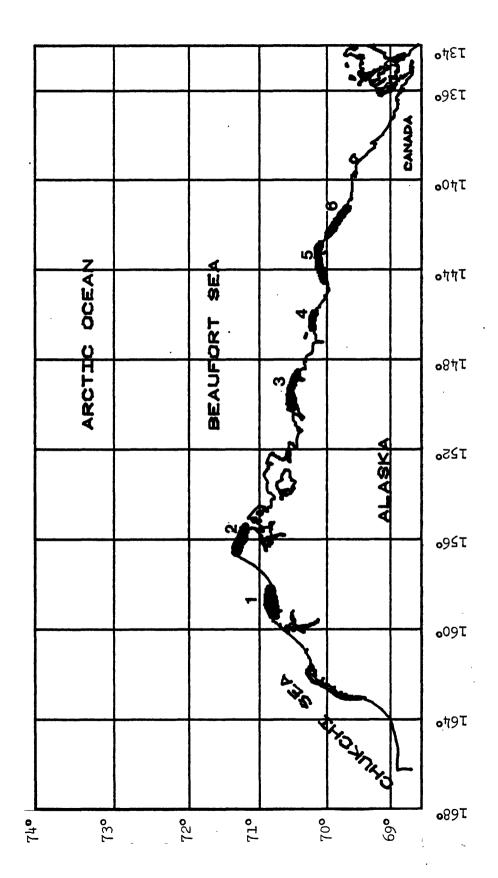


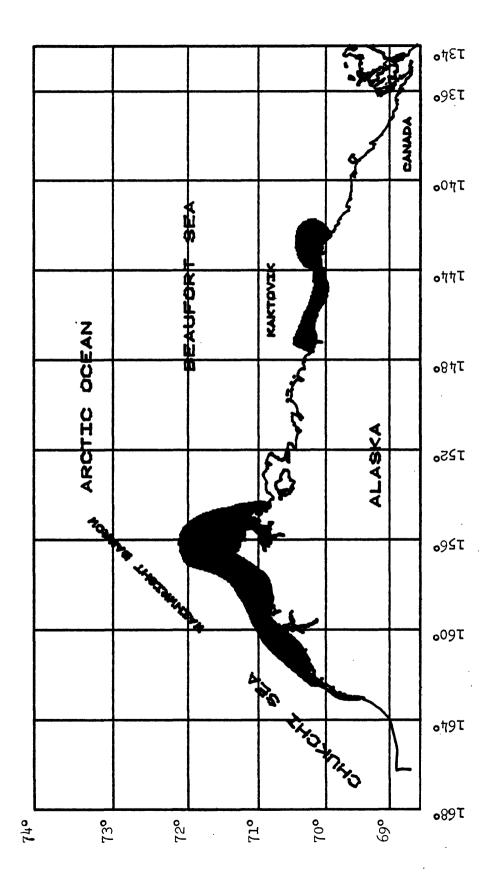
Figure A-2. -- Map showing the locations of Beluga whale concentration areas A and B, Diapir Field OCS Lease Offering (June 1984): cross hatching indicates areal extent.



-- Map showing the locations of major whale migration areas A and B, Diapir Field OCS Lease Offering (June 1984): cross hatching indicates areal extent. Figure A-3.

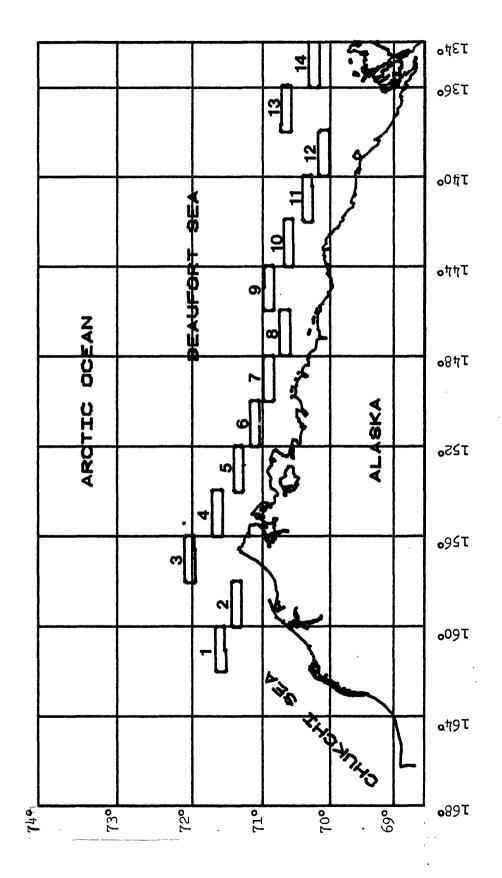


-- Map showing the locations of seabird foraging areas 1 through 6, Diapir Field OCS Lease Offering (June 1984): cross hatching indicates areal extent. Figure A-4.



cross hatching indicates Figure A-5. -- Map showing the locations of whaling subsistence areas (Wainwright Barrow and Kaktovik), Diapir Field OCS Lease Offering (June 1984): cross hatching indica areal extent.

j



-- Map showing the location of sea segments 1-14, Diapir Field OCS Lease Offering (June 1984). Figure A-6.

Appendix B

Table 61, -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target during April 15 - June 15. Uilspill trajectory simulations initiated on October 15.

14 74 14	7 0	ų.	•	Hypother PR	etica po	l Sp.	ונו רים 111	Locat	100	p17. u1	15 01	7 6 9 1 7	2	010	0.00	0 100	0 000	, ,	200 70
				5	-	-	-	J	3	7	-		<u>-</u>	Ĺ	0.5	7	<b>u</b>	2	*
c	c		_	c	c	c	c				ĸ		c	c	c	c			
	c		_	_	c	c	c						c	c	c	c			
	c		c	_	c	c	c						c	c	c	c			
<b>u</b> u	c		c	=	<b>=</b>	c	c						c	c	c	c			
	c		_		c	c	M						3.7	c	17	10			
	c		_		c	c	c						17	c	17	30 1			
c c	c				c	c	c						c	c	c	<b>c</b>			
c c		c			c	ċ	c						c	c	c	c			
		c			c	įC	c						c	c	c	<b>c</b>			
	c		-		c	c	c						c	c	c	c			
	c				c	c	c						c	c	c	د			
c c		c			c	c	c						c	c	c	c			
c c		c			c	c	m	•	_				0.7	c	23	33	_		
		C			c	c	c						c	c	;c	<b>-</b>			
c c		c			c	<b>c</b>	c						د	c	c	c			
c c c	c				c	c	c						c	c	c	c			
c c		c			c	c	c						22	د	17	33			
c c		<b>c</b>			c	<b>c</b>	m						30	c	13	7			
c c c		c			c	c	c						13	c	13	c			
c c		c			c	_	c						M	c	c	c			
c c		<b>-</b>			c	c	c						2	<b>c</b>	c	د			
c		c		ت د	c	<u> </u>	<b>c</b>	c	c	<b>c</b>		c	c	c	c	<b>c</b>	c	c	7 30
c c		c			c	c	c						c	c	c	c			
	c				c	c	c						c	c	c	ے			
	c		_		c	c	د						c	c	c	c			
c c		c			c	c	c						c	د	c	c			
	c				<b>c</b>	<b>c</b>	c						c	c	c	c			
	c		-		c	د	c						c	c	c	د			

<u>.</u>

Note: \*\* = Greater than 93.5 percent; n = less than 0.5 percent.

Table B1. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target during April 15 - June 15. Dilspill trajectory simulations initiated on October 15.

Taruet						Hypothetical Spill Location
	P 26	P27	P2S	P 29	P30	
Bowhead Feeding A	c	c	c	c	c	
Bowhead Feeding B	c	=	c	c	~	
Beluga Conc. A	c	ε	ε	c	ς.	
Beluga tonc. B	=	ε	_	c	c	
Major whale wige. A	E	=	=	c	c	-
	2.5	11	20	23	73	
Seabird Area 1	=	c	ε	c	c	
Seubird Area 2	Ξ	ε	c	c	c	
Seabird Area 3	ε	c	c	c	c	
Seabird Area 4	c	=	<b>E</b>	c	c	
Seabird Area 5	=	=	c	M	c	
Seabird Area 6	c	c	c	c	c	
Whaling (Wainwright)	c	~	c	c	_	
Whaling (Kaktovik)	~	c	ε	10	13	
Sea Segment 1	c	c	c	c	c	
	c	c	د	c	c	
Sea segment 3	=	c	c	c	c	
Sea Seyment 4	=	~	c	c	~	
Sea Segment 5	~	~	c	c	c	
Seyment	<u></u>	17	c	M	~	
	3.5	30	c	13	17	
Sea Segment 8	14	10	c	22	20	
Sea Segment 9	2	3	c	10	23	-
Sea Segment 10	=	~	ε	<b>E</b>	13	
Sea Segment 11	<b>c</b>	c	c	c	c	
Sea segment 12	c	c	c	c	c	
ea Seyment 1	c	د	e	د	c	
Sea Segment 14	c	c	c	¢	c	

faule 32. -- Prouabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target during April 15 - June 15. Uilspill trajectory simulations initiated on January 1.

P1 P2 P3 P4	2 P3		7		PS	P6 ==	Hypot P7 P	thetic P8 P9	at S	0 P1	Loca 1 P12	tion P13	P14	P15	P16	P17 F	P13 P	919	P20 P	P21 P2	22 P2	3 P2	4 P25
	•	١.											•		•								;
c		c	_c	c	c							<b>c</b>	'n	c	c	c	c	c					
c		c	c	c	c							c	c	c	دِ	c	<b>c</b>	c					
c		=	ε	c	c							c	c	c	ے	<b>c</b>	<b>c</b>	c					
=		c	c	c	c							c	c	c	c	c	c	c					
=		<b>c</b>	<b>.</b>	73	c							c	20	c	c	13	c	c					
=		<b>-</b>	۔	c	c							c	53	c	37	80	c	c					
=		c	=	د	د							c	c	c	د	c	c	c					
c		c		c	c							c	c	c	c	c	c	c					
_		c		<b>c</b>	c							c	c	c	c	c	c	<b>c</b>					
_		=		c	c							c	c	c	c	c	<b>c</b>	c					
Ξ		C		c	c							c	c	c	c	c	c	c					
=		c		c	c							c	c	c	c	c	c	c					
c		c	~,	37	c							c	25	c	10	20	<b>c</b>	c					
_		c		c	c							c	c	c	c	c	c	_					
<b>C</b>		c		20	c							c	c	c	c	c	c	c					
_		c		63	c							c	<b>c</b>	c	c	c	<b>c</b>	c					
=		c		c	c							c	40	c	7	10	c	c					
_		c		c	c							c	<b>4</b> 3	c	c	13	c	c					
=		c	c	c	c							c	33	c	c	40	<b>c</b>	c					
_		ć	÷	c	c							c	~	<b>c</b>	c	53	~	c					
c		c	۶	c	c	ء	رے	c	٠	c	c	c	c	c	c	17	~	c	y U	25	c c	33	c
_		c	c	c	c							c	<b>c</b>	c	c	<b>c</b>	c	c					
<b>C</b>		c	c	c	c							c	c	c	c	c	c	c					
_		c	·c	c	c				-			c	c	c	c	c	د	c					
C		c	c	c	c							c	c	c	c	;	c	c					
_		c	c	c	c							c	c	c	c	c	c	c					
_		=	c	c	c							c	c	c	c	c	c	c					
_		<b>-</b>	c	c	c							c	c	c	c	c	c	c					

faule U.Z. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target during April 15 - June 15. Oilspill trajectory simulations initiated on January 1.

						Hypothetical Chill Location
) 	P 2 6	P27	P 2 3	P 2 9	P 30	
Feeging	Ξ	c	c	c	c	
Bowhead Feeding B	c	ε	=	20	c	
uctuja Conc. A	c	ε	=	c	c	
eluja Conc.	E	c	c	c	c	
Major Whale Wigr. A	ε	c	c	c	c	
ajor Whate Wigr.	17	25	*	c	33	
r.	<b>c</b>	c	ε	c	c	
Area	c	c	c	c	c	
Seabird Area 3	c	c	c	c	<b>c</b>	
eabird Area	<b>c</b>	c	c	c	c	
eabird	c	c	c	13	c	
	=	ء,	c	۷	c	
(Wainwri	_	ε	c	c	c	
ing	13	10	<b>c</b>	30	<b>4</b> 0	
	c	c	c	c	c	
Seyment	c	c	<b>c</b>	c	c	
Se	c	c	=	ε	c	
Seyment	c	c	<b>c</b>	c	c	
Sejment	c	c	c	۵	c	
လ	=	c	c	c	<b>c</b>	
Sea Seyment 7	<b>-</b>	c	c	c	c	
Sea Segment d	7	13	c	M	c	
Seyment	13	20	c	M	24	
Segment	c	30	c	c	09	
Seyment	c	10	c	c	30	
Seyment	c	c	<b>c</b>	c	~	
es se	c	ح	=	ε	c	
Sea Countries 12	4	6	1	•	•	

Table 33, -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target during April 15 - June 15, uilspill trajectory simulations initiated on April 1.

P25	c	=	c	=	c	c	c	c	c	c	c	C	c	c	c	_	c	c	c	c	c	c	c	c	c	c	c	c
P24	c	c	c	c	c	23	c	c	c	c	c	_	c	c	c	c	c	c	c	_	23	93	c	c	c	c	<b>c</b>	c
P23	c	c	c	c	c	*	<b>c</b>	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	د	c
P22	c	c	c	c	c	c	<b>c</b>	د	c	c	c	c	c	c	=	c	c	c	c	c	c	c	c	c	c	c	c	c
P21	c	c	c	c	c	9	<b>c</b>	c	c	c	c	c	c	c	c	c	c	c	5	37	93	12	c	c	c	c	c	c
P20	c	c	د	c	c	c	c	c	c	c	c	c	c	<u>_</u>	c	c	c	c	c	c	c	c	c	c	c	c	c	c
P19	c	c	c	c	c	*	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
P 1 &	c	c	٤	c	c	c	c	<b>c</b>	ε	<b>c</b>	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
P17	c	۵	د	c	c	22	c	c	c	c	c	c	c	c	c	c	c	M	09	6	26	c	۲	c	c	c	c	c
P16	c	c	c	5	2	*	c	c	c	c	c	c	۵	c	c	c	c	c	c	c	<b>c</b>	c	c	c	c	c	c	c
P15	c	c	<b>c</b>	c	c	c	c	c	c	c	c	c	c	c	c	c	<b>c</b>	c	<b>c</b>	c	c	c	c	c	c	c	c	c
P14	c	c	c	c	c	c	c	c	c	<b>c</b>	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
10n P13	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	د	c	٤	c	c	c
ocat P12	c	_	c	c	c	05	c	c	c	c	c	c	c	c	c	c	c	c	c	<b>c</b>	c	c	c	c	c	c	c	c
11 L	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
Spi P10	c	c	<b>c</b>	c	73	63	c	c	c	c	c	c	93	c	<b>c</b>	c	22	22	c	c	c	c	c	c	c	c	c	c
icat p9	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	ے	c	c	_	c	c	c	c	c	<b>c</b>
othet P8	c	c	c	c	*	~	c	c	c	c	c	c	*	c	c	c	63	63	M	c	c	c	c	c	c	c	c	c
11ypq p.7	c	c	c	c	33	17	c	c	c	c	c	c	93	c	c	د	26	c	c	c	c	<b>c</b>	c	c	c	c	c	c
P 6	c	2	c	· C	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
P 5	c	c	د	c	c	c	c	c	c	c	c	c	53	c	c	c	63	c	c	c	c	c	c	c	c	c	c	c
þ ¢	c	c	<b>c</b>	c	*	c	c	c	c	c	c	c	*	c	47	80	c	c	c	c	c	c	c	c	c	c	c	c
P3	c	c	c	<b>c</b>	90	Ξ	Ξ	<b>c</b>	<b>c</b>	c	Ξ	c	2	c	87	20	c	c	c	c	c	c	c	c	c	د	<b>c</b>	c
P 2	C	c	=	ε	c	c	c	=	c	c	ε	Ξ	<b>c</b>	c	c	¢	c	c	<b>c</b>	c	<b>c</b>	c	c	c	<b>-</b>	c	c	c
19	c	c	د	c	76	c	c	c	c	c	c	<b>c</b>	c	c	13	ε	c	c	<b>c</b>	<b>c</b>	c	c	ε	c	c	ε	۵	c
<b>*</b> .					<b>V</b>	n			•				t															
	A gai	ing 6	<	~	Higr.			~	<b>~</b> 1	4	2	9	(Nainurijh)	(Kaktovik)	_	~	~	4	5	9	2	⊗	٠	<b>1</b> 0	1	12	13	14
	Feec	Feec	Conc.	onc.	ale	a le	Area	Area	Area	Area	Area	Area	( Na)	(Kak	ien t	ent	ent	nen t	hent	en t	nent	ent	ne n t	ient	en t	) ent	ne n t	eyment
e t	Bowhead Feeding	Jowheau Feeding	3 75	Beluga Conc.	TA P	IM DO	bird	nu.	p.J.t.	J.L.	pird	ird	ing	ing	Segment	Segment	Seyment	Seyment	Segment	Seyment	Seyment	Segment	Sejment	Seyment	Segment	Seyment	Seyment	Seym
Taryet	HOE	SONE	netusa	Belu	Major	lla jor	Seabird	Seabiro	Stanfrd	Scutting	Seabird	Seabird	Whating	Whating	Sea	200	Sea	Sec	Sea	Sec	Sea	Sed	Sed	Sea	Se i	Sed	Sea	Sea

Note: \*\* = Greater than 99.5 percent; n = less than 0.5 percent.

Table 13. (ContinueJ) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target during April 15 - June 15. Oilspill trajectory simulations initiated on April 1.

laryet						Hypothetical Spill Location
	P 2 3	P27	PZĕ	P29	P 3()	
Bouhead Feeding A	ε	c	=	~	<b>c</b>	
Bounead feeding a	2	c	<b>c</b>	# #	2	
Beluja Conc. A	c	ε	=	_	c	
deluga Conc. B	c	c	c	c	<b>c</b>	
Major whate Higr. A	c	2	c	Ξ	c	
Major Whale Migr. 8	c	20	*	c	13	
Seubird Area 1	c	c	c	ح/	c	
Scabird Area 2	Ξ	c	ε	٦	c	
seauird Area S	<b>c</b>	c	c	c	c	
Seabira Area 4	Ξ	ε	=	c	_	
Seabird Area 5	c	c	Ξ	13	c	
Seubird Area 6	Ξ	c	c	90	c	
Whating (Wainwright)	c	c	c	c	c	
Whating (Kaktovik)	=	70	<b>c</b>	90	70	
Sea Segment 1	٦	c	=	c	<b>c</b>	
Sea Sejment 2	c	c	_	c	c	
	c	c	Ξ	c	c	
Sea Segment 4	=	c	c	<b>c</b>	c	
	c	c	c	c	c	
Sea Seyment o	c	c	=	c	c	
Sea Segment 7	c	ε	=	ء	د	
Sea Seyment 3	_	10	5	c	· c	
Sea Segment 9	c	63	c	c	33	
sea Segment 10	=	63	c	c	80	
Sea Seyment 11	c	c	c	c	73	
Sea Segment 12	c	c	c	c	c	
Sea Seyment 13	<b>c</b>	۔ ۔	c	_	c	
Can Section 16	•	,	í	,	,	

Note: \*\* = Greater than 99.5 percent; n = less than 0.5 percent.

1

		>1,000 bbts.			210,000 bbts.	1 1 1 1 1 1 1
larqet	proposal	east deletion	west deletion	proposal	east deletion	west deletion
	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean
Bowhead Feeding A	4 0.0	1 0.0		1 0.0		
Bowhead feeding B	8 0.1	0°0 u	8 0.1	3 0.0	0.0	3 0.0
	0°0 u	0°0		۰ 0 س		
Beluga Conc. B	0			۰ 0 د		
Major Whate Migr. A	51 0.7	45 0.6	23 0.3	26 0.3	23 0.3	
Major Whale Migr. B	0			25 0.3		23 0.3
Seabird Area 1	0			۰ 00		0°0 u
Seabird Area 2	0°0 u			0°0 u	n 0.0	0°0 u
Seabird Area 3				0.0		0°0
Seabird Area 4	0	0°0		0°0 u	٥٠٥	0°0 u
Seabird Area 5	C			1 0.0	ں۔ 0ء	
		0°0		3 0.0		
		0	29 0.3			14 0.1
Whaling (Kaktovik)	·			8 0.1	n 0.0	
Sea Segment 1			0°0 u			
Sea Seyment 2	•		0°0 c			
Sea Segment 3	33 0.4	. 28 0.3		16 0.2	13 0.1	10 0.1
Sea Seyment 4	0		19 0.2			
Sea Segment 5	0	12 0.1				
	0	14 0.1				
Sea Seyment 7	0	18 0.2				
Seyment		11 0.1				
Segment	C				0	
	0				0	
Sea Seyment 11	6 0.1	0	6 0.1	3 0.0	0°0 u	3 0.0
	0	9			C	
Segment		0.0 u		0°0 u		0.0 v
Sea Segment 14	0.0	0	۰ 0 0	0.0	0°0	۰ 00 د

B-5 Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting targets over the expected production life of the lease area, proposed vs. proposed and canadian tankering. Spills were launched during the winter season. Targets were vulnerable during April 15 through June 15. Probabilities are for spills 1,000 and 10,000 barrels and oreater.
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t 14 n 0.	<u>.</u>	0	•	•	•	

Table b-6.--Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting targets over the expected production life of the lease area.

Oilspill contacts occurred during the winter season.

Probabilities are for spills 1,000 barrels and greater.

ter	e	٦.	٠,	٣.	c.	۰.	٥.	۲.	0	0.08	0.	٥.	0	۲.	۷.	٣.	٥,	7.	۲.	۲.	5	4.	٥.	٦.	~	~	٦.	c.	0	0.
wint	prob	29	20	17	٤	c	36	7.1	c	30	4	4	¢.	16	83	7.4	32	36	53	54	41	34	39	4.1	19	- 5	12	~	c	c
days	mean	00.00	0.54	0.13	00.0	0.00	1.38	0.33	00:0	0.02	00.0	0.04	0.03	0.18	1.21	1.21	0.06	0.29	0.22	0.24	0.10	0.12	0.23	0.22	00.0	0.04	0.08	0.01	0.00	0.00
30	prob	c	77	16	c	c	75	82	c	~	c	~	M	16	70	2	•	25	2.	21	6	-	20	19	c	7	2	-	c	c
days	e)	•	0.42	•	•	0.00	•		•	0.00	00.0	0.02	0.01	0.18	1.04	1.17	0.01	0.25	0.11	0.19	0.03	0.07	0.19	0.17	0.00	0.02	0.04	0.00	0.00	00.0
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Note: n= less than 0.5 percent.

Table 8-7.--Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting targets over the expected production life of the lease area. Oilspill contacts occurred during the winter season. Probabilities are for spills 10,000 barrels and greater.

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eluga Conc.	c	٠.	c	٦.	c	•
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jor Whale Migr.	13	٦.	13	٦.	75	٠,
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abird Area	~	٥.	~	9	~	0
hating (Wainwrig	36	7.	4.1	~		۲.
Whating (Kaktovik)	39	٠,	40	ς.	43	.5
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ė	c	0.00	c	0.00	-	0.01.
ea Seyment 1	c	٥.	c	٥.	c	0.
ea Segment 1	<b>c</b>	0	c	9	c	9

Note: n = less than 0.5 percent.

e spills,	tacting	• of		season.
e 11-0,Probabilities (expressed as percent chance) of one or more spills,	and the expected number of spills (mean) occurring and contacting	lund or boundary segments over the expected production life of	the lease area. Propabilities are for spills 1,000 barrels	and greater. Uilspill contacts occurred during the winter season.
hance) of	) occurrin	cted produ	spills 1,0	d during t
percent c	ils (mean	the expe	are for	s occurre
se pass	r of spi	ints over	bilities	contact
es (expre	ted numbe	ary seime	a. Proud	Jitspill
obabiliti	the expec	or bound	lease are	greater.
e 13-0Pr	pue	ردا	the	and

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Note:  $n\equiv$  less than 0.5 percent. Segments with less than 0.5 percent probability of one or more contacts during the winter are not shown.

Table B-9probabilities (expressed as percent chance) of one or more spills,
and the expected number of spills (mean) occurring and contacting
land or boundary segments over the expected production life of
the lease area. Probabilities are for spills 10,000 barrels
and greater. Oilspill contacts occurred during the winter
20300

nter	Ð	0.01	•	•	0.01			•	0.16	•		٥.	90.0	0	0	0.	٥.		•	•	0	0	Ť,		0	
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days	Φ		•	•	0.00	•	•												•	•					00.0	
30	prob	_	c	c	c	c	c	c	2	c	2	2	c	c	ء	c	c	c	2	c	c	<b>c</b>	c	c	2	
days	mean	0.00	0.00	00.0	00.0	00.0	00.0	00.0	0.00	<b>0.0</b>	0.00	0.00	0.00	0.00	0.00	00.0	0.00	0.00	0.00	00.0	0.00	0.00	0.00	0.00	0.00	
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	Segment	50	21	22	23	54	97	22	32	33	34	35	39	41	7.5	43	77	s 1	32	83	88	68	06	91	26	

Note: n= less than 0.5 percent. Segments with less than 0.5 percent probability of one or more contacts during the winter are not shown.